

# ABA@BU Hackathon Competitions Fall 2020 – Spring 2023



## Video Links

ABA@BU Hackathon Fall 2022 Competition 1: <https://www.youtube.com/watch?v=y-p8XWn3XY>  
 ABA@BU Hackathon Fall 2022 Competition 2: <https://www.youtube.com/watch?v=budRGAm-yVc>  
 ABA@BU Hackathon Fall 2020 Review by Prof. Greg Page: <https://www.youtube.com/watch?v=XkxLXiEQhgg>

## Contact

BU MET Applied Business Analytics Program  
 email: [abamet@bu.edu](mailto:abamet@bu.edu)  
 program page: <https://www.bu.edu/admins/programs/applied-business-analytics/>

Boston University Metropolitan College

## ABA@BU Hackathon Spring 2023: Competing Teams & Winners

### Competition 1: Dataset Analysis and Modeling

**R2R**, Competition #1, Jia Lyu, Xiang Ji, Jingyi Wu, Cheng Qian, Yuanchen Xu **WINNER**

**ErrorQuest**, Pratikshya Sarangi, Sameera Kodukulla, Dowish Sajjani, Dhanyata Mehta  
**SDM**, Symbat Aman, Darkhan Kalniyazov, Madi Arystanov **Terrier.IPYNB**, Ryongweon Kang, Hugi Munggaran  
**Inf. Team**, Liying Zhang, Jingyi Wu, Yiwei Hu, Zhen Wang, Xinran Yu **Moshimoshi**, Ansheng Fan, Yuchen Jin, Shanye Xue, Jiyuan Shen

### Competition 2: Business Case Analysis

**Business Brainiacs**, Zhicheng Qiu, Chia-Yun Tai, Yating Wu **WINNER**

**404Error**, Shanshan Sun, Yusen Zhou, Junsheng Wang, Meiqi Tao **Hackover**, Juthathip Thasai, Xueyan Zhuang, Zongze Yang  
**Superb**, Shaomeng Shen, Xiaoyu Zhou, Shuqing Li, Zihan Xia, Yixin Ding **All At Once**, Jiarui Liu, Keyue Xie  
**ErrorQuest**, Pratikshya Sarangi, Sameera Kodukulla, Dowish Sajjani, Dhanyata Mehta  
**Beyond Infinity**, Ruchika Murmu, Mansi Chaudhary, Vedant Shah, Priam Vyas

### Competition 3: Technical Interview Simulation

**HackRunner**, Keyao Pan **WINNER**

**Members of the Review Committee:** Greg Page, ABA Master Lecturer; Dr. Cansu Tayaksi, ABA Assistant Professor; David Ritt, ABA Lecturer; Hanbo Yu, ABA Adjunct Faculty

## ABA@BU Hackathon Fall 2021: Competing Teams & Winners

### Competition A: Dataset Analysis and Modeling

**RUSH A+**: Gengjin Liu; Sihao Xiang; Yanru Zhou; Jingyao Zhang; Luyao Wang **WINNER**

### Competition B: Business Case Analysis

**Code Breakers**: Kelly Ann Matos; Prianka Sharma; Yixiao Wang **WINNER**

**Sugar-Free Boba**: Yunlou Teng; Jingyao Xie; Yu Tian; Liyang Chen; Jingran Xu

### Competition C: Competitive Landscape Analysis

**Nightmare Back Again**: Yadi Wang; Yuchen Wang; Shuxiao Fan; Wenqiang Gao

**Yangtze Delta**: Rong Li; Zhe Yu; Runqi Zhao **WINNER**

**Members of the Review Committee:** Krystie Dickson, ABA Lecturer ABA; Dr. Hyunuk Kim, ABA Assistant Professor; Greg Page, ABA Senior Lecturer; David Ritt, ABA Lecturer; Dr. Vladi Zlatev, Assoc. Professor, ABA program coordinator

## ABA@BU Hackathon Spring 2021: Competing Teams & Winners

### Competition A: Dataset Analysis and Modeling

**A TEAM**: Shang Ding, Jinghao Dong, Yuzhen Liang, Yixi Lin

**MEOWDERLAND**: Jiani Gao; Jiayuan Shi; Yukun Xiong

**PYTHON CRAFTSMAN**: (Claire) Xiaotong Ding; Xiangyu Wang; Ting Xiao; Menghao Xu; Zhenyan Yin **WINNER**

**YOU KNOW WHO**: Wang Deng; Ginna Gomez Guerrero; Meng Hsien (Kelvin) Lu; Anqi Xia; Chi-Hung Yang

### Competition B: Business Case Analysis

**GLOBAL ALLSTARS**: Scott Hull; Usman Khan; Donald Trakakis; Lujia Wang

**LIGHTING**: Xiaogeng Chi; Shuwen Li; Ruoqia Peng; Ziqi Zhao; ShangQing Zhu **WINNER**

### Competition C: Competitive Landscape Analysis

**NIGHTMARE BACK**: Yufei Gao; Ziting Guo; Yadi Wang; Qiao Xu **WINNER**

**Members of the Review Committee:** Krystie Dickson, MS ABA (May 2020); Hanbo Yu, MS ABA (January 2021); Yaming Wu, MS ABA (January 2021); Greg Page, Senior Lecturer ABA; Dr. Vladi Zlatev, ABA program coordinator

## ABA@BU Hackathon Fall 2020: Competing Teams & Winners

### ABA STUDENT e-PORTFOLIO, Project 2: Creation of a Marketing Campaign ABA@BU

**Team Analytics Squad**: Shimony Agrawal, Yamile Avila, Greta MacDonald, Abhishek Kumar, Vikas Balakrishna Rao **WINNER**

### LinkedIn ABA COMMUNITY GROUP PAGE, Project 4: Defining Rules of ABA LinkedIn Pages

**Team Lady Three**: Zhaoyu Li, Yuxin Lin, Jiayu Xi

### ANALYSIS OF DATA SCIENCE JOB POSTINGS, Project 5: Exploration of a Dataset - Analysis of Data Science Job Postings

**Team Sanitizer**: Zeying Liu, Daming Song, Yaming Wu, Tiandi Zhang **WINNER**

**Team Analytics Squad**: Shimony Agrawal, Yamile Avila, Greta MacDonald, Abhishek Kumar, Vikas Balakrishna Rao

**Team Julia 0.0.0, Project 5**: Shitong Cheng, Yi Chen, Kexin Liu, Jiayuan Shi, Yecong Zhang

**Team S**: Xiaotong Ding, Zhen Fu, Yiwei Song, Zhenyan Yin; Anmol Sandhu

**Team Zootopia, Project 5**: Shuyuan Gu, Yijing Peng, Ching Chiun Yao, He Wang, Yunnuo Wang

**Members of the Review Committee:** Greg Page, Senior Lecturer ABA program; Dr. Vladi Zlatev ABA program coordinator; Ravi Doddavaram, Lecturer ABA program; David Ritt, Lecturer ABA program

## Topics

Student teams are participating in three competitions:  
 (1) dataset analysis and modeling;  
 (2) business case analysis;  
 (3) job interview simulation: testing your technical and analytics skills.

Teams are given the same dataset for modeling, the same business case, the same dataset for job interview simulation, and access to software to solve a challenging problem using an applied business analytics approach.

## Format

### Timeline (same for all three competitions):

1. Submission for participation in the team competitions (3 to 5 students/team) due Wednesday, March 15, at 11:59 pm ET
2. Start of all three competitions on Friday, March 17 at 8 am ET (teams will have their own Bb page)
3. Submission of the team presentations due Saturday, March 18, at 9 am ET
4. Presentation sessions start Saturday, March 18, at 10 am ET (live-streaming over Zoom)
5. Winners announcement on Saturday, March 18, at 1 pm ET (live-streaming over Zoom)

## ABA@BU Instagram



## ABA@BU Hackathon Fall 2022 Competing Teams & Winners

### Competition 1: Dataset Analysis and Modeling

**Abnormal Distribution**: Aravind Hanumantharao; Kristin Jeyachander; Mansi Chaudhary; Rithik Viji Srinivasan; Ruchika Murmu

**Meteor Temple**: Yuxin Yang Alex; Chen Wen; Ziming Hua; Yuteng Yan

**Outliers**: Keyue Xie; Hongyi Chen; Keyao Pan; Tianyi Wang; Handuo Zhang

**The Three Musketeers**: Wanzhen Li; Zhiyang Xu; Ming Cheng

**Team Xia**: Yunqi Xia **WINNER**

### Competition 2: Business Case Analysis

**Abnormal Distribution**: Aravind Hanumantharao; Kristin Jeyachander; Mansi Chaudhary; Rithik Viji Srinivasan; Ruchika Murmu

**Hackathon Champion**: Hsin Fang Hu; Shih De Huang; Xiuting Liu; Wen Ling Hsu

**Inf. Team**: Liying Zhang; Yunhao Bao; Jingyi Wu; Xinran Yu

**Terrier Slebew**: Putranegara Riauwindu; Ryongweon Kang; Hugi Munggaran; Hidayatullah Buwono **WINNER**

**Members of the Review Committee:** Greg Page, ABA Master Lecturer, Dr. Cansu Tayaksi, ABA Assistant Professor; Krystie Dickson, ABA Lecturer; Hanbo Yu, ABA Adjunct Faculty

## ABA@BU Hackathon Spring 2022: Competing Teams & Winners

### Competition A: Dataset Analysis and Modeling

**Data Professionals**: Claire Ding, Xiukui Ji, Eva Zhong, Mira Luo, Yixin Ren **BCT**: Xiaoyu Shi, Yixiao Wang Yiran Chen, Xiaoyun Li

**RAMS**: Houchen Liu, Miaoyu Xu, Zijin Zheng, Xian Li **AD999**: Kegui Zhuo, Hanlu Wang, Xiangxian Song

**TBD**: Yunlou Teng, Haoxuan Zhang, Luyao Wang, Gengjin Liu **WINNER**

### Competition B: Business Case Analysis

**Best Team**: Jiaqi Li, Yi Feng, Yinqiu Cai, Haomin Jiang, Ruiqingqing Yang

**Data Exposers**: Hardik Gupta, Rohan Wagle, Yiding Xiao, Ka Chung Ng **WINNER**

### Competition C: Competitive Landscape Analysis

**DED**: Danjie Qing, Eisha Salman, Di Ha, Niu Wang, Zhengkai Lu

**Terriers**: Ziming Hua, Haihan Yuan, Zhanfeng Li, Wenxuan Fu **WINNER**

**Members of the Review Committee:** Greg Page, Senior Lecturer ABA; Dr. Hyunuk Kim, ABA Assistant Professor; David Ritt, ABA Lecturer; Hanbo Yu, adjunct ABA faculty; Scott Hull, adjunct ABA faculty

# Experience & Insights From On-Campus Alumni Moderated Panel



Boston University Metropolitan College



Moderator: Greg Page

Panelists: Mengya “Amelia” Zhao, Xiukui Ji, Yaming “Arvin” Wu, Yiyuan “Emily” Cao

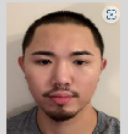
## Panel Participants



**Greg Page (Moderator)** - Master Lecturer at BU MET, ABA Instructor (ADR100, AD654, AD699)



**Mengya Zhao** - MS Applied Business Analytics (January 2023), **Company:** JP Morgan



**Xiukui Ji** MS Applied Business (May 2022), **Company:** Strategy, Design, Governance (SDG)



**Yaming Wu** - MS Applied Business Analytics (January 2021), **Company:** McKinsey



**Yiyuan Cao** - MS Applied Business Analytics (January 2020), **Company:** Edwards Lifesciences

## Panelists' Experience

**Mengya “Amelia” Zhao** – Now works in a risk analytics role with JP Morgan in Delaware. Before ABA, worked in banking and financial analyst roles in China.

**Xiukui Ji** – Has been working since the Summer of 2022 at SDG, a consulting company with offices in Cambridge, MA.

**Yaming “Arvin” Wu** – Currently works in an analytical role for McKinsey. Also worked for Boston Consulting Group since graduating from ABA in January 2021.

**Yiyuan “Emily” Cao** – Works as a financial analyst for Edwards Lifesciences in California after starting with Edwards as a data analyst. Also runs a consultancy for international students seeking employment in the United States

## Real Application of ABA Program Knowledge

Although the specific tools used daily tend to vary considerably from person to person, the conceptual skill sets that come from ABA coursework are very useful to students.

Students found that some parts of the ABA curriculum were well-matched with the types of questions that came up during job interviews. Concepts regarding modeling, machine learning, and all forms of predictive analytics are vital.

Structural knowledge about data and data structures was essential for the panelists' success.

## The F-1 Experience in the Job Hunt

International students, in particular, need to be sure that they can “tell the story” behind each of the bullet points on their resumes. When asked about specific resume items during an interview, they should be sure not to downplay their achievements or experiences, but to proudly take ownership of those accomplishments.

Initiative matters! To the best degree possible, frame your story in a way that makes it sound more interesting and exciting. As a TA, you can say that you “led a team of 40 students” in their data preparation work, rather than just say “I answered some questions from students.”

Small talk can have a big impact. It can help to break the ice during a phone screen or interview.

## Skill-Related Themes

Several panelists spoke about data visualization. Some use Business Intelligence tools such as Power BI and Tableau. Even for those who do not use Python or R for visualizations or analysis on a daily basis, the general skill sets that they learned using those tools was applicable in other realms.

Data wrangling and data preprocessing are essential skills for each of these analysts.

SQL was mentioned by every one of the panelists as a fundamental tool that they use frequently.

## Advice for Job Seekers

Know your target. What is your goal? Develop a long-term plan and then build your job search around that.

Closely read job descriptions, and modify your resume to more closely match what is listed in the job description. Some panelists had a ‘standard’ resume version that they slightly modified to achieve this.  
Interviews down the road?

## While on the Job...

After starting out with a company, internal transfers are a common part of recent graduates' experiences.

One of our panelists had already changed positions once within the same company, and another is exploring internal transfers within her current company.

## Recommended Tools

Panelists recommended their most prominent tools being applied in their work. The top technology choices noted were: **Excel, Power BI, Tableau, Looker, Snowflake, R, SQL, and Python**



## Big Picture Thoughts

Companies are looking for people with specific skills who can perform the tasks that they care about. If your skills match their needs? You need to make sure they hear that!

Be sure to keep a spreadsheet with all of your job applications carefully noted! That way, you won't be caught off-guard when a company calls you about an interview and you're not quite sure who they are.

## Contact

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BU MET Applied Business Analytics Program

email: [abamet@bu.edu](mailto:abamet@bu.edu)

program page:

<https://www.bu.edu/adminsc/programs/applied-business-analytics/>

# Experience & Insights From Online Alumni Moderated Panel



Moderator: Roman Rabinovich

Panelists: Nirmeen Damrah, Vivek Dhotrekar, Lalida Kwok, and Carol Sloane

Boston University Metropolitan College

## Panel Participants



**Dr. Roman Rabinovich (Moderator)** - Dr. Grenoble Ecole de Management, MS Business Analytics Arizona SU, MS international Marketing Management / BU MET ABA OL Instructor (AD100, ADR100, AD571, AD699) / **Company:** Customer Data Consultant @ Decile



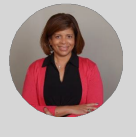
**Nirmeen Damrah** - MS SCM, Analytics Concentration / BU MET OL Facilitator (AD571) / **Company:** Supply Chain Specialist @ SYNNTIC



**Vivek Dhotrekar** MS Applied Business Analytics / BU MET OL Facilitator (AD571, AD688, AD699, AD715) / **Company:** Strategy & Business Transformation Consultant @ Ernst & Young



**Lalida Kwok** - MS Applied Business Analytics / BU MET OL Facilitator (AD571) / **Company:** Ecommerce Product Manager @ CEB



**Carol Sloane** - MS Applied Business Analytics / BU MET OL Facilitator (AD571) / **Company:** VP, Multinational Business Analytics and Tools @ AIG

## Panelists' Experience

**Nirmeen Damrah** – With a background in engineering, Nirmeen started her own company and covered the gap of how to use data and analytics in manufacturing. Nirmeen also supports the process of how to think about analysis and optimize solutions for factories in order to reduce cost and enhance efficiency.

**Vivek Dhotrekar** – With a background as an analyst working with client analytics, product analytics, sales analytics, and tech project management, Vivek worked with institutional product teams focusing on growth strategy for mutual funds. Work included making an impact with descriptive and prescriptive analytics that enable business insights from data science functions. Vivek joined ABA to enhance and hone his skillset in analytics, which is critical to success on the job.

**Lalida Kwok**– Experienced marketer working with analytics. With a professional background at Vans, Rivian, and UCLA, Lalida is currently a product manager working with marketing, engineering, and analytics teams to lead the website and store decisions. She has been applying analytics across B2B and B2C.

**Carol Sloane** – With a background in telecom and insurance, Carol currently works on the international business of AIG. Carol currently manages 15 analytics resources onshore and offshore to ensure that optimal decisions are made on tax applications and booking business. Carol works with senior leadership to identify opportunities and risks through BI tools like Power BI. ABA program afforded the ability to get the expertise to leverage analytics for actionable insight, to expand profitability, and become effective operationally.

## Real Application of ABA Program Knowledge

The ABA Program was impactful right away as students can visualize in Power BI and technically automate functions in R. The program helps to think in more structured ways. Consultants need to narrow down and clearly define the problem, identify the right data points, and translate the analysis into actionable insights. This was accomplished very quickly in the program.

Students learn very quickly to understand the business question, collect data, clean data, choose a model, and analyze with a storytelling perspective. Overall, it is a perfect program to learn how to apply data to address specific questions. Prior to learning the concepts taught in ABA, reports for analysis may have been run without a plan for the action to take.

Framing a business question was one of the most important concepts picked up at BU. Sometimes you may provide insight and analysis that is not valuable, but that stops after ABA.

With the ABA classes, students feel enabled to connect a technical field with information management along with data analytics to uncover opportunities, improve products, and enhance services through the applications of relevant data and analytics.

Students can transition into a more analytics-focused role mid-program because the most relevant tools are used in real applications within the program.

## Future of the Analytics Professional

The future analytics professional should be able to work with disparate data sets and bring them all into one place as well as manage highly versatile technology as data is becoming increasingly portable. There is a growing list of service and product providers that do specific things with data that may be beneficial at certain points in the business' lifecycle. There is a need to know how to manage different technology.

The reality is that data is becoming increasingly democratized and there is a demand as well as a requirement for accessibility to the data within the organization as well as between partners. The analytics professional of the future will be able to access and consume data for faster and higher quality decisions, and organizations will look for talent that is making data-driven decisions across all functions.

Analytics professionals of the future will need to stay up to date on data management ethics while they automate processes of different types of data strategies.

## Importance of Upskilling

There is a need for professionals who can manage the entire process starting from pulling and manipulating the data. Then preprocessing is followed by quantitative analysis, gleaming out insights and translating into the business context.

Understanding technological innovation and creating access to clean data where it may not yet exist is an important skill to pick up and hone. Then focus shifts to doing analysis, generating insight, and translating the insights into action. First, we need to learn the tools that set us on the path to success.

Potential for analytics pros to skill up and solve more technical issues that require a shift from creative to more technical. Some have the business expertise and not the data expertise.

Sometimes it requires a special set of skills to identify the technological scenario that will enable the data to be efficient and exist as a single source of truth. Everyone should come back to one source so that everyone has a matching dataset, but it takes a skilled analyst to set the stage for this situation.

## Staying Current With Industry Changes

Take part in communities where information is relevant to your role and in abundance. Power BI Desktop and Tableau have communities and newsletters that share insight on how to visualize data best.

Follow thought leaders in your space. Connecting with your classmates who are embedded in your industry of interest. Join INFORMS, Women In Analytics, connect with people on KDnuggets for tools in Machine Learning and AI.

Read publications and attend conferences that are appealing and relevant to where you are and where you want to be in the next 5 years. You can also create curated feeds for yourself from experts in the field.

## Storytelling Effectively

Storytelling with data is a learned skill which is a big part of the work. The magic is in the ability to reframe the story you tell about the business scenario with the assessment of the data you have.

Data storytelling skills also continue to improve as you are taught how to approach different stakeholders with different data and angles.

In addition to being a technically savvy professional, the story telling aspect will be useful in discussions with investors, negotiating with customers, and being a professional with the confidence in the solutions you aim to introduce.

## Recommended Tools

Panelists recommended their most prominent tools being applied in their work.

The top technology choices noted were **Excel, PowerPoint, Power BI, Tableau, Looker, Alteryx, R, SQL**



## Message To Peers

Stay curious and always reinvigorate your question asking of the data. Explore why things are happening and make sense of the world of information being collected as a competitive advantage.

Stay in contact with your peers, fellow alumni, professors, and always seek to explore how they achieved their goals as well as how they got to where they are today. Explore the various career journeys and possibilities at your fingertips with BU MET ABA.

Always remember to share what you see and learn with the university to make the academic program more applicable with relevance to the real world. This is one way to give back and help evolve the curriculum with your contributions.

## Contact

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program page:

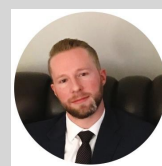
<https://www.bu.edu/adminso/programs/applied-business-analytics/>

## Panel Participants



**Kelly Ann Matos (Moderator)** – Data Manager, Equal Opportunity Office / BU MET OL Facilitator

MS Applied Business Analytics, January 2022



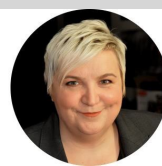
**Benjamin Flavin** - Director of Prospect Analytics, Development & Alumni Relations

MS Applied Business Analytics, May 2022



**Piotr Mirza** - Programmer Analyst, MET Analytics Department

MS Applied Business Analytics, May 2019  
MS Computer Information Systems, May 2022



**Brigitte Ritter, PhD** – Assistant Professor, Biochemistry and Director Analytics and Admissions for GMS, BU School of Medicine

GC Project Management, January 2022  
GC Applied Business Analytics, January 2023  
MS Applied Business Analytics, May 2024

## Contact

### BU MET Applied Business Analytics Program

Email: [abamet@bu.edu](mailto:abamet@bu.edu)

Program webpage:

<https://www.bu.edu/adminsc/programs/applied-business-analytics/>



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<https://www.linkedin.com/groups/12401049/>



Visit our Employability site:

<https://www.bu.edu/metit/career-development/>

## Intersectionality

Panelists discussed the intersectionality of being a student and an employee simultaneously. Being a student impacted our role as an employee, and being an employee impacted our experience as a student. Our unique position of seeing the educational experience from multiple sides lead to some key takeaways:

- A learning mindset
  - Students are continually learning and adapting to new information and situations. This mindset can be beneficial in the workplace, as it encourages ongoing learning, growth, and development
- Collaboration
  - Students are often required to work in groups or teams, developing strong communication, problem-solving, and collaboration skills that can be transferable to the workplace.
- The importance of time management and the ability to prioritize appropriately
  - Scheduling time to complete tasks is essential to maintaining sustainability throughout your time as a student and allocating dedicated time for coursework allows you to compartmentalize your roles
  - When school comes first – in order to successfully complete the program, you must be willing to put the necessary time and effort in
  - When work comes first – we are first and foremost employees and must be able to fulfill our work obligations
  - When life comes first – we are all human and recognize the various demands put on us outside of school and work
- A unique perspective
  - Real-life experience in the workforce – many students don't have this
  - Time since undergrad to consider options – our choices can be more calculated as we have had time to research the best programs and plan our path forward

## The Future of Analytics

Panelists discussed the future of analytics in general, as well as the analytics profession. Some key items panelists foresaw as important to this discussion included:

- Increased use of Natural Language Processing (NLP) and Voice Recognition
  - As voice assistants become more prevalent, analytics will need to be able to interpret NLP to provide more accurate insights.
- Adoption of Augmented Reality and Virtual Reality
  - Technologies will enable analysts to visualize data in new ways, potentially making it easier to identify trends and opportunities.
- Artificial Intelligence and Machine Learning
  - AI and ML have been transformative for analyzing data at scale and in real time.
- Greater focus on customer experience analytics
  - In order to personalize and optimize customer experience.
- Enhanced data privacy and security
  - Given the increasing importance of data in decision-making, analytics will need to ensure that data privacy is maintained while still providing actionable insights.
- The continued growth of big data
  - The types and amounts of available data will only continue to grow
- The need to harness that information to guide decision-making
  - Beyond simply collecting information, we must be able to put it to use
  - Finding the correct reporting tool for each purpose
- The need for strong communication
  - As data analysts, it is our responsibility to demonstrate our results in a clear and concise manner geared towards the appropriate audience.
- The looming threat of ChatGPT
  - How it can be used for good and for malevolence
  - The importance of being at the forefront of this and other new technologies

## Message To Peers

Try it out! As a BU employee, we are afforded certain resources that are not common for other individuals considering pursuing a graduate degree or certificate. Make use of the tuition remission program and the ability to enroll as a non-degree student before committing to a program.

Use electives as a way to explore your interests, whether within the analytics program or across other university programs.

While a graduate degree can certainly advance your career externally, don't overlook the opportunities for advancement available within the university itself. Two of the participants directly credit their MS ABA for their current leadership roles at BU.

Lean on your resources. As a member of the ABA community, you have a team of people willing to share insights and experiences and help guide you forward in both your education and your career.

## Recommended Tools

Panelists recommended their most prominent tools being applied in their work. The top technology choices noted were: **Excel, Power BI, Tableau, R, Python, and SQL**



# 5Y ABA@BU Community Panel Discussion with ABA Current On Campus Students

Boston University Metropolitan College

Moderated by Professors: Krystie Dickson and Dr. Cansu Tayaksi

## Moderators



## Panelists

### Our Panelists



## Overview of the Panel Discussion

On Friday 14<sup>th</sup> April, the ABA program held a panel discussion with seven of the program's top students. The discussions were centered around the following topics:

1. The Emergence of ChatGPT and the future of analytics
2. The debate on pausing AI advancement for six months
3. Effective tools for job searches in the analytics field
4. Valuable advice for the incoming ABA students, including course selection and career paths

## Emergence of ChatGPT and the Future of Analytics

Artificial Intelligence have seen a rapid growth in recent years, and the development of sophisticated language models like ChatGPT has been a significant achievement.

As highlighted by our panelists, students should be careful of the use of ChatGPT, which can inhibit their learning if not utilized properly. The idea is that if students rely too heavily on ChatGPT to provide with answers or do tasks for them, they may miss out on the opportunity to develop critical thinking skills and problem-solving abilities. When you are in an education institution, learning these abilities matters the most. It's crucial to cultivate these skills and independent learning habits for a well-rounded education.

While it is certainly true that we should not become overly reliant on AI, it is important to note that language models like ChatGPT are designed to enhance our abilities rather than replace them. They can assist us in processing information and generating new ideas, act as a consultant, helps us to find necessary information, allowing us to explore and analyze complex topics in ways that would be difficult without such tools.

Learning to use ChatGPT and other AI tools effectively is important for future employment opportunities, particularly in data analytics. In the age of rapidly advancing technology, it's likely that future employers in fields such as data analytics and AI will expect job candidates to have knowledge of and experience with tools such as ChatGPT. Our panelists also expect that new job opportunities and career paths will emerge as technology continues to evolve.

## Advice on Selecting Course Electives

As part of the Master's degree program in Applied Business Analytics, students must complete two course electives. Choosing these electives can be a challenging process, but there are some tips to make it easier. It's recommended that students start by having a clear idea of their career path. Ask yourself where you see yourself in the next five years. For example, if you aspire to manage an analytics team, you may want to consider choosing management-related courses such as project management.

If you haven't decided on a career path yet, it's best to let your curiosity guide you. There are several courses available that can help you gain a deeper understanding of various industries, such as healthcare and finance, among others. By exploring different courses, you can discover new interests.

## Effective tools for Job search

During the discussion, the panelists highlighted various tools that can assist in the job search process and streamline the application process. Boston University Career Centre offers a suite of helpful tools to assist students in crafting and enhancing their resumes. Additionally, Handshake, a widely-used platform, provides students with access to job postings, virtual career fairs, company events, information sessions on the job market, and more. To stay ahead in the job market, it's crucial for students to build their network and connect with people who can offer information and opportunities. On-campus jobs can also provide students, particularly international ones, with valuable exposure to the US work culture and enhance their resumes. Lastly, several website plugins are available that can simplify the job application process.

## Thoughts on the Pause in AI Improvements

The question of whether we should stop AI improvements for a period of time is a complex one, and there are valid arguments on both sides.

- Some panelists argue that stopping AI improvements would be a mistake. The development of AI has already brought significant benefits in fields ranging from healthcare to education, and there is much more potential to be realized in the future.
- While AI has the potential to bring about many positive advancements and benefits, it is also important to consider the potential risks and challenges associated with this technology. Some panelists argue that stopping AI advancements for a period of six months could provide an opportunity to address safety and ethical concerns, encourage human learning and creativity, and redirect resources to other pressing areas of research and development.

## Advice for the incoming ABA students

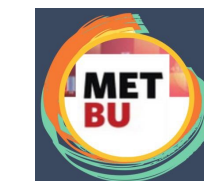
Communication with your advisors is crucial. As they can help plan your course selections for each semester. Additionally, Boston University's Career Center offers a wide range of services, including resume writing, interview preparation, and access to tools like Handshake for job search and application. The ABA program's employability services, can assist you in creating your own ePortfolio, match your skills with the job market, and prepare for technical interviews. By utilizing these resources, you can set yourself up for success both during and after the program.

## Stay Connected

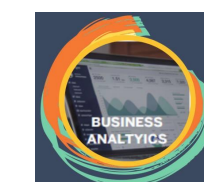
There are several ways to stay connected with our ABA Community:



Follow us on Instagram @metbu.aba



Follow us on linkedin. Search for BU MET ABA Community or follow this link: <https://www.linkedin.com/groups/12401049/>



Visit our Employability site: <https://www.bu.edu/metit/career-development/>

## Contact information

Krystie Dickson: [krystied@bu.edu](mailto:krystied@bu.edu)  
Dr. Cansu Tayaksi: [ctayaksi@bu.edu](mailto:ctayaksi@bu.edu)

ABA Program's email: [abamet@bu.edu](mailto:abamet@bu.edu)

ABA Program's Website: <https://www.bu.edu/adminsc/programs/applied-business-analytics/>

## Competitive Landscape Analysis (CLA)

The Competitive Landscape Analysis Framework (CLA) was developed to gain insights into the performance of programs offered at BU MET.

The framework seeks to analyze data of competing universities by rating and ranking them to determine the competitive positioning of our programs based on various factors.

CLA was tested on the ABA program in Spring & Summer 2020 and 2021.

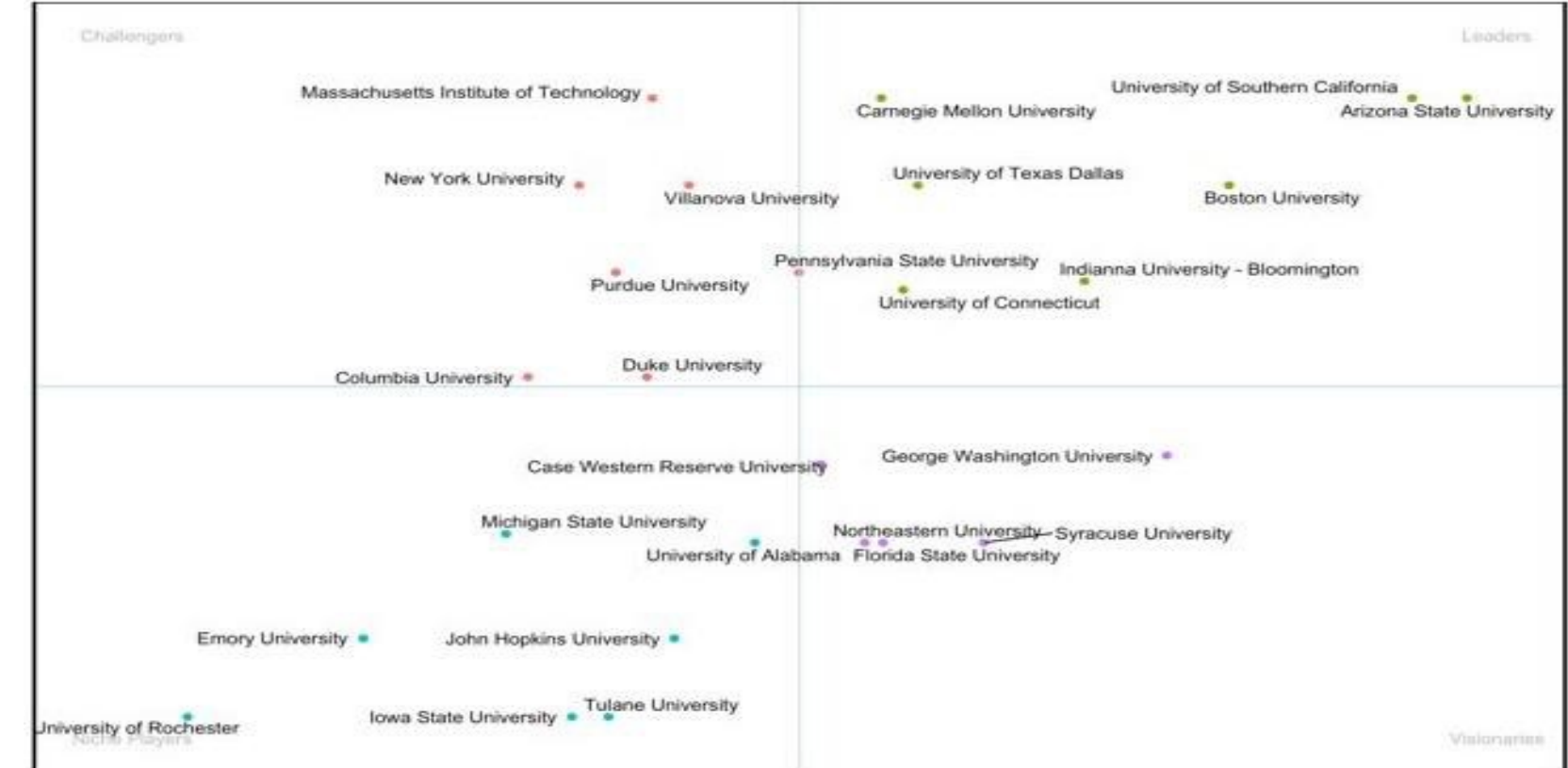
## CLA Objectives

The aim of this framework is to provide insights into the competitive landscape of each program within the BU MET college. The goals are to:

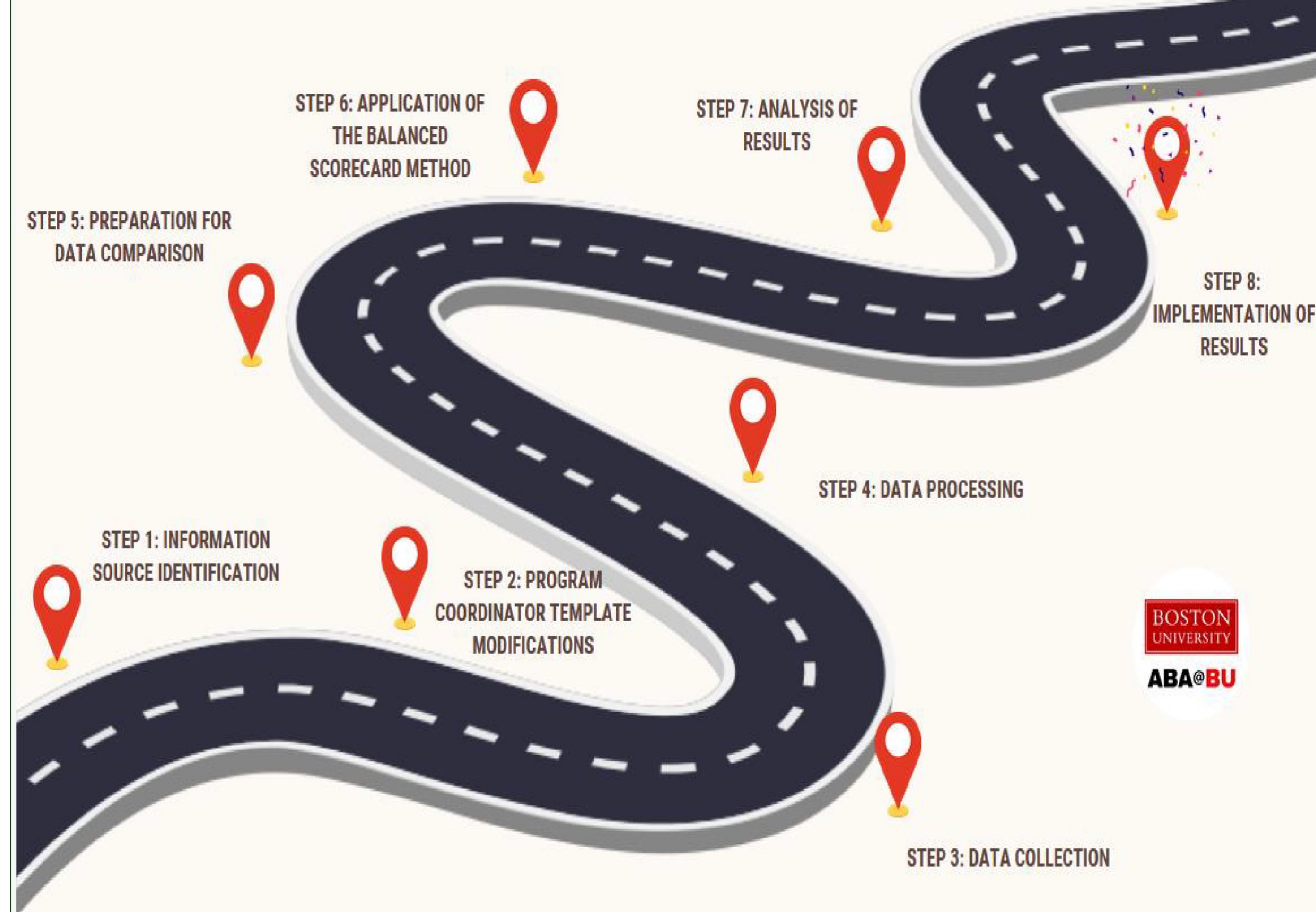
1. Identify each program's competitive positioning in the marketplace
2. Support program enhancement by determining industry skillset gaps.
3. Demonstrate competitive strength in comparison to similar programs in other universities.

**BU MET ABA Program ranked top 5 among all universities in the U.S. offering a masters degree in Applied Business Analytics.**

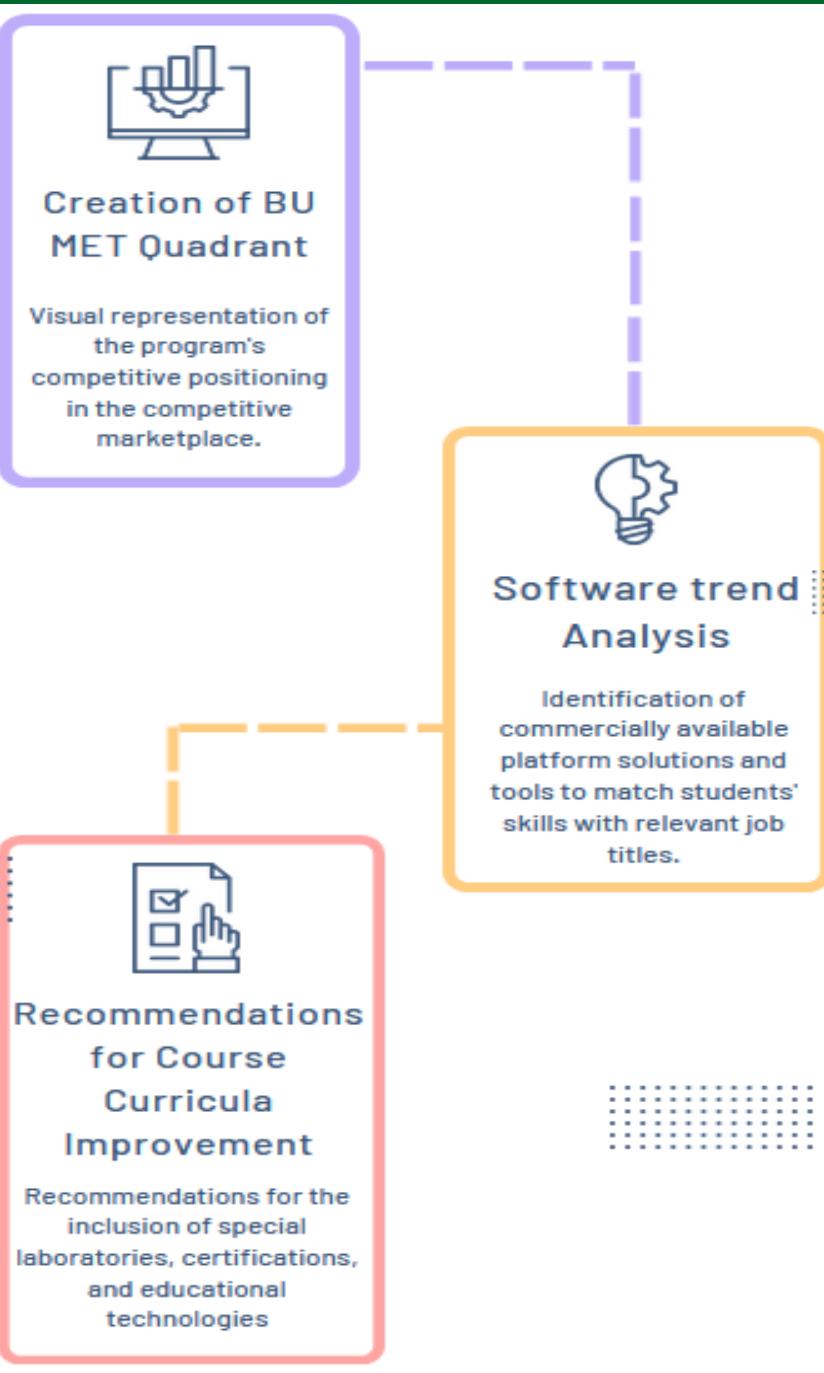
## CLA Program Level Results – BU MET ABA Rankings 2021



## COMPETITIVE LANDSCAPE ANALYSIS ON PROGRAM LEVEL METHODOLOGY



## CLA Targeted Outcomes



## Implementation of Results – ABA Program

The successful application of the CLA framework resulted in the creation of the following courses :

1. **AD599** – Introduction to Python and SQL for Business
2. **AD899** – Capstone Project in Applied Business Analytics
3. **AD799** – Neural Networks for Business Applications

## BU MET College CLA Framework Applications

The following programs at BU MET have successfully applied the CLA framework:

- Financial Management
- Supply Chain Management
- Project Management
- Enterprise Risk Management

## Contact information

Krystie Dickson, Lecturer, Applied Business Analytics: [krystied@bu.edu](mailto:krystied@bu.edu)

ABA Program Email: [abamet@bu.edu](mailto:abamet@bu.edu)

## in the Applied Business Analytics Program

Cansu Tayaksi, PhD, Krystie Dickson, MS, Chris Athaide, PhD, Vladimir Zlatev, PhD  
 Department of Administrative Sciences, Metropolitan College, Boston University

Boston University Metropolitan College

### Background Problem & Our Offer

Are you a graduating student feeling overwhelmed by the job hunt?

Look no further than employability services!

Our services are designed to help you stand out from the competition and land your dream job.

Here is what we offer:

- Create a strong strategy for job search
- Establish a good foundation through starting an ePortfolio and analyzing your employment preferences
- Connect with faculty and consultants to match your skills with job offers
- Build self-confidence with mock interviews



ABA Community Efforts

### How our services will help?

We understand that the job hunt can be daunting.

That's why we offer guidance and support in creating a job search strategy that works for you.

We will help you prioritize your efforts and identify potential employers that align with your skills and interests.

**Service 1 will help you:**  
 Showcase your skills and experiences to potential employers in a clear and concise way with our ePortfolio service



**Service 2 will offer you:**  
 Guidance on navigating the current job market based on your skills and preferences.



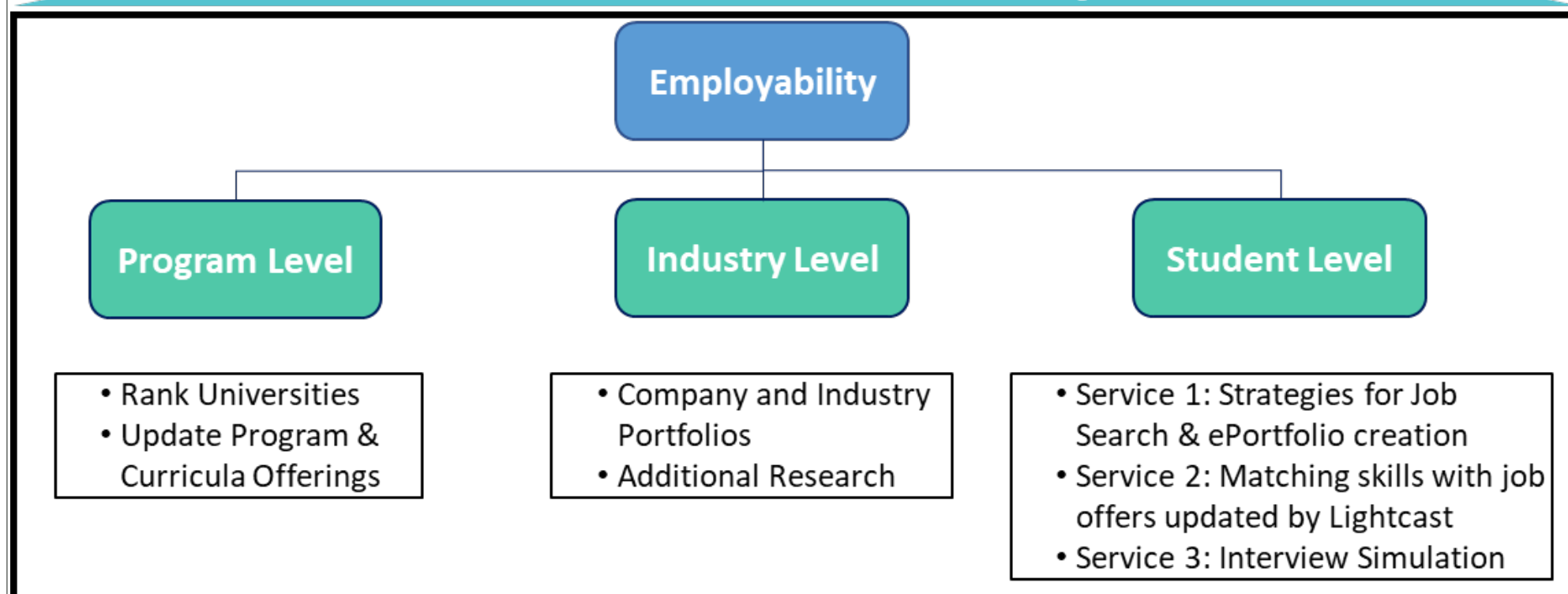
**Service 3 will help you to build:**  
 self-confidence with mock interviews: We'll provide you with valuable feedback and guidance that can help you stand out as a competitive job candidate.



### Supporting System



### ABA@BU Community



### Data Sources



ABA Employability Database Design and Development

ABA@BU Marketing and Advertising Initiatives

ABA@BU Blog Articles, Podcasts, Testimonials

### Contact Information

Cansu Tayaksi, PhD  
 email: [ctayaksi@bu.edu](mailto:ctayaksi@bu.edu)

BU MET Applied Business Analytics Program  
 email: [abamet@bu.edu](mailto:abamet@bu.edu), program page:

<https://www.bu.edu/adminso/programs/applied-business-analytics/>



# Employability Service 1: Individual Preparation for Job Search



Boston University Metropolitan College

**ABA@BU ePortfolio**  
 Krystie Dickson, MS, MSc, Applied Business Analytics Faculty  
 Vladimir Zlatev, PhD, Applied Business Analytics Program Coordinator.

## ABA@BU ePortfolio

An ePortfolio is a great tool that will allow students or individuals to summarize and display their skills, technical capabilities and achievements.

Benefits of having an ePortfolio:

1. Allows for the demonstration of your skills and experiences in a web format.
2. Can be easily accessed through your unique URL.
3. Makes your application stand out in the job application process.
4. Helpful tool for your future career development.

## BU MET ABA & Digication Collaboration

At BU MET, we've collaborated with Digication (an online ePortfolio platform), to create an ePortfolio template for our students. In using this template, you can gain the following benefits:

1. The Digication platform can be accessed by using your BU email and password.
2. Students can use the BU MET ePortfolio template to create their very own ePortfolio.
3. You will always have access to your ePortfolio, even after you've graduated.
4. You get to control access to your ePortfolio.

## ABA@BU ePortfolio Skill Level Identification

Students can identify their level of experience and their current skills by selecting the most relevant option in the following categories when creating their ePortfolios:

ABA Community Group	Technical Skills	Industry Experience	Analytical Skills	Leadership Skills
ABA Employer's ePortfolios	R	0 - 2 years	Data Visualization	Research Assistant
ABA Academic ePortfolios	Python	2 - 5 years	Sentiment Analysis	Teaching Assistant
ABA Individual ePortfolios	SQL	> 5 years	Regression Analysis	Team Leader
	Other		Google Analytics	Community Leader

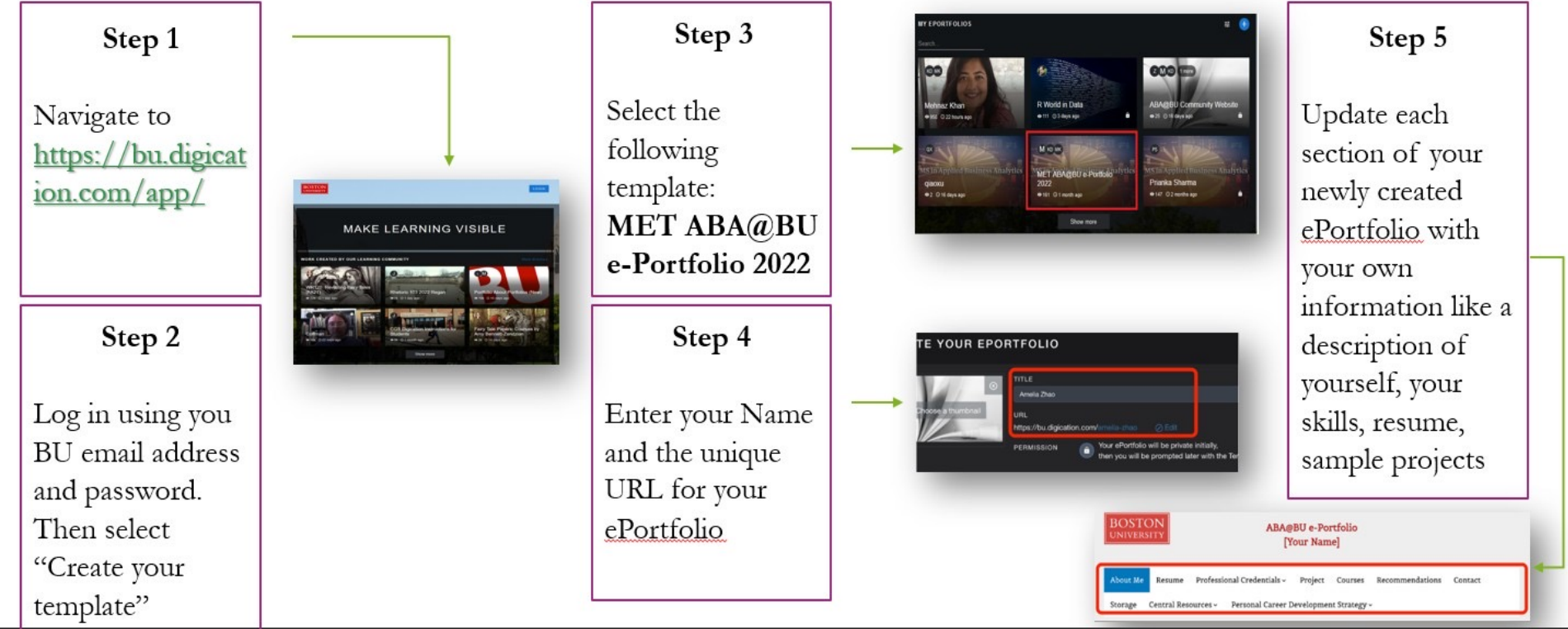
## ABA@BU ePortfolio – Addition of Preparatory Lab Badges

Students can add the badges earned through the successful completion of Metropolitan College's preparatory Labs to their ePortfolios.

### Badges & Certificates – BU MET Preparatory Labs



## Steps for creating your ePortfolio



## ABA@BU ePortfolio Template – 'About Me' Page

**ABA@BU e-Portfolio**  
[Your Name]

- About Me
- Resume
- Professional Credentials
- Project
- Courses
- Recommendations
- Contact

- Storage
- Central Resources
- Personal Career Development Strategy

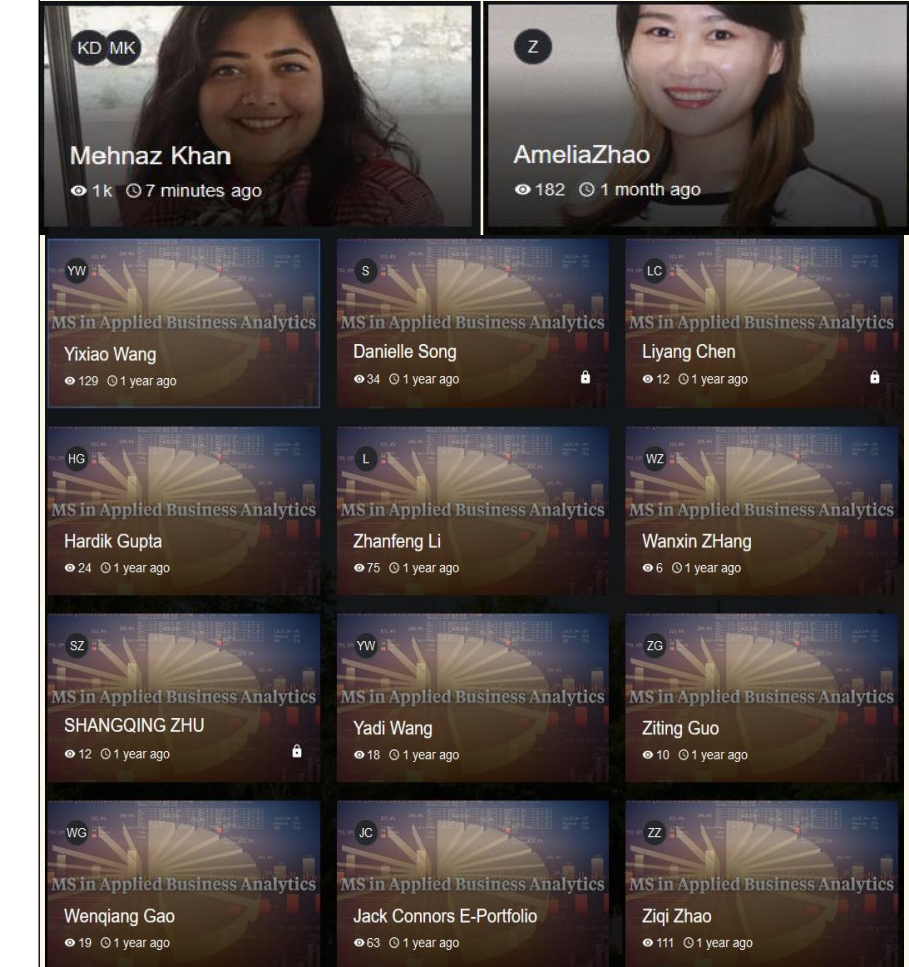
### About Me

The "About Me" page is a great place to provide some information about yourself. You might wish to include a picture of yourself or other media that represents your identity or personal "brand." Depending on the purpose of your ePortfolio, the types of information and media you provide may vary greatly. Think about how you would like to portray yourself to different audiences. **Consider including the following:**

- A short bio
- Where you are from
- Interests
- Hobbies
- What you are currently studying

**Achievement:**  
You can include several bullet points, talking about the highlight achievement in your academic and career experience.

## Students' ePortfolios



## ABA@BU ePortfolio Resources

BU MET Employability Services website:  
<https://www.bu.edu/metit/career-development/>

## Contact information

**Krystie Dickson, Lecturer, Applied Business Analytics:** [krystied@bu.edu](mailto:krystied@bu.edu)  
**ABA Program Email:** [abamet@bu.edu](mailto:abamet@bu.edu)



# BU MET ABA Employability Service 1 – Define Skills & Employment Preferences

Anu Shinebayar (MS in Project Management, May 2024)

Academic Advisor: Vladimir Zlatev, PhD

Boston University Metropolitan College Applied Business Analytics Program



Boston University Metropolitan College



ABA@BU

## INTRODUCTION

The skills and employment preferences dashboard 1 was designed with the purpose of providing an informative overview of the potential job opportunities available for students majoring in Applied Business Analytics.

The dashboard draws from a variety of sources, including the International Institute of Business Analysis (IIBA), to provide a comprehensive understanding of the skills and experience required to pursue a career in this field. The dashboard also offers insights into the most in-demand job roles and industries that are currently hiring business analysts.

By exploring the dashboard, students can identify their areas of interest and expertise, and determine which career paths they are most likely to thrive in. This information can be used to guide their coursework, internships, and job search strategies, and help them to build a strong foundation for their future career also will help students to prepare for Service 2.

The dashboard is easily accessible to students through the BU MET ABA Career Service website, which serves as a valuable resource for Applied Business Analytics majors. Overall, the skills and employment preferences dashboard 1 is a valuable tool for any student pursuing a career in business analytics, providing them with the knowledge and insights they need to succeed.

## METHODS

Self service portal is designed to provide a centralized location for individuals to access resources and tools that can help them to know about their skills and knowledge in the industry.

This portal offers a wide range of resources that can help individuals search more about their expertise in key areas such as business analysis and product management. By leveraging these resources, business analysis experts can enhance their value to organizations across all industries and improve business outcomes.

Furthermore, the self-service portal is designed to be user-friendly and accessible, making it easy for individuals to navigate and find the resources they need. Whether someone is looking to enhance their skills in data analysis, project management, or stakeholder engagement, the self-service portal offers a wealth of information and guidance to help them achieve their goals.

## REFERENCES

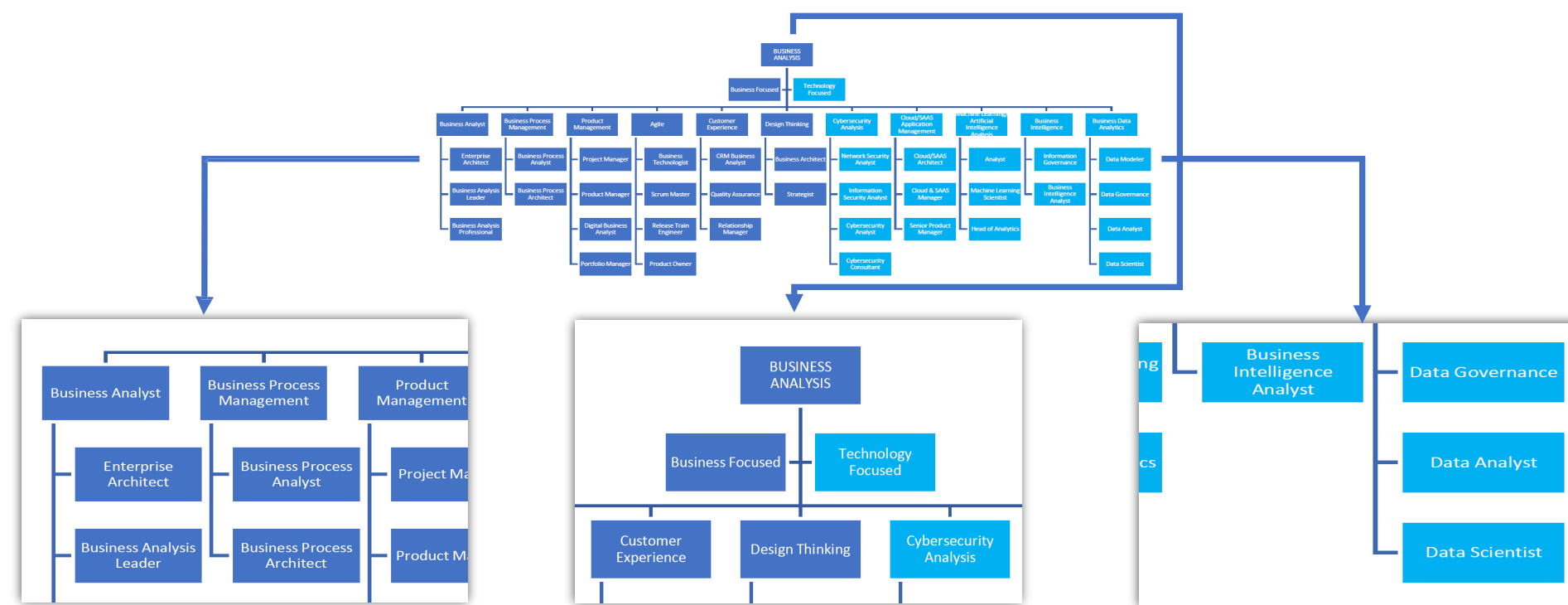
IIBA, 2021. In-Demand Business Analysis Skills for 2021. *IIBA*. Retrieved from <https://www.iiba.org/business-analysis-blogs/in-demand-business-analysis-skills-for-2021/>

Rehkopf, M. What is product management? *Atlassian*. Retrieved from <https://www.atlassian.com/agile/product-management>

BLS, 2022. Occupational Employment and Wage Statistics. *BLS*. Retrieved from <https://www.bls.gov/oes/current/oes151241.htm>

## IIBA

The Service 1 dashboard provides Applied Business Analytics students with an essential tool to explore a wide range of career paths and identify the roles that align best with their skills and interests. The Career Road Map offers a comprehensive overview of both traditional and emerging roles within the industry, highlighting the skills and experience required for each position. By leveraging this information, students can gain a better understanding of the job market and make informed decisions about their academic and career pursuits. They can also prepare themselves for internships and job searches by tailoring their coursework and skill development to meet the demands of the industry. Overall, the Service 1 dashboard is an invaluable resource for Applied Business Analytics students, enabling them to maximize their potential for success in this exciting and constantly evolving field.



IIBA, 2021. In-Demand Business Analysis Skills for 2021. *IIBA*. Retrieved from <https://www.iiba.org/business-analysis-blogs/in-demand-business-analysis-skills-for-2021/>

## RESULT

Dashboard 1 provides students with a comprehensive overview of the business analysis field, displaying two primary focuses, 11 specializations, and 34 expanded roles. Each expertise and job is accompanied by a detailed description, sourced from reputable industry organizations, to help students better understand the various functions and responsibilities of each role.

By clicking on the URLs provided, students can conduct further research and gain a more in-depth understanding of the different business analysis roles and functions. The dashboard is designed to be flexible and can be easily adjusted to accommodate additional specializations or roles as needed for other programs or applications.

The number of specializations displayed in Dashboard 1 was selected based on the Applied Business Analytics program's specific needs. However, if needed, the dashboard can be adjusted and expanded to accommodate different programs or applications with varying numbers of specializations. This ensures that the dashboard remains a relevant and useful resource for students across different industries and fields of study.

- Business Analysis: All
  - Business Analysis
    - Business Focused
      - Agile
        - Business Technologist
      - Business Analyst
        - Business Analysis Leader
        - Business Analysis Professional
      - Business Process Management
        - Business Process Analyst
        - Business Process Architect
      - Customer Experience
        - CRM Business Analyst
      - Design Thinking
        - Business Architect
      - Product Management
        - Digital Business Analyst
    - Technology Focused
      - Business Intelligence
      - Business Intelligence Analyst

**Description**

Agile methodology breaks the developmental process into iterative steps and encourages flexibility, testing, and change throughout the life cycle of a project.

Business analyst help guide businesses in improving processes, products, services and software through data analysis. These agile workers straddle the line between IT and the business to help bridge the gap and improve efficiency.

**Description URL**

<https://www.atlassian.com/agile/product-management>

**Job Title URL**

<https://www.bls.gov/oes/current/oes151241.htm>

**How to Use This Dashboard**

- Click on the Job Title that suits you on the "Business Analysis: Focus: Category: Description: Job Title" Block. You could also use the "Search Box" below and type your desired job title
- Click on the desired Job Title on the "Business Analysis: Focus: Category: Description: Job Title" Block
- A URL on "URL" block will appear based on your query, click on the link and you will be redirected to the source website providing information related to your selected job title.

**Search Box**

business



## OBJECTIVES

The Service 1 dashboard provides valuable information to assist Applied Business Analytics students in preparing for internships and landing their dream job post-graduation.

It offers insights into the job market, including in-demand job roles, industries. This information can help students make informed decisions about their coursework, internships, and job search strategies and help them to be prepared in Service 2.

Furthermore, the dashboard showcases how education can translate into job opportunities, enabling students to identify their areas of interest and expertise and determine which career paths align best with their skills and interests.

## CONCLUSIONS

Dashboard 1 provides a clear and concise introduction to the various job positions available to Applied Business Analytics graduates. It serves as a valuable resource for students to self-learn and gain insight into the different roles within the field of business analysis.

Through the use of the dashboard, students can analyze the various job positions and gain a better understanding of which roles align best with their skills, interests, and career goals. They can explore traditional and emerging roles, such as Business Analyst, Business Intelligence Analyst, Data Analyst, and Data Scientist, among many others.

By leveraging the information provided in the dashboard, students can make informed decisions about their academic and career pursuits, ensuring that they are well-prepared for success in the field of business analysis. Overall, Dashboard 1 is an essential resource for Applied Business Analytics students seeking to gain a comprehensive understanding of the many job opportunities available to them after graduation.

## DATA SOURCES



Boston University Metropolitan College



U.S. BUREAU OF LABOR STATISTICS

## CONTACT

Anu Shinebayar (MS in Project Management, May 2024)

Email: [anushine@bu.edu](mailto:anushine@bu.edu); LinkedIn: [linkedin.com/in/anu-shinebayar-003686179](https://www.linkedin.com/in/anu-shinebayar-003686179)

MET ABA Employability Services: [abamet@bu.edu](mailto:abamet@bu.edu)

# Using Extract, Transform, and Load and Data Visualization Tools to Enhance Career Services for Analytics Master's Program Student

Putranegara Riauwindu (MS in ABA, January 2024)

Academic Advisor: Vladimir Zlatev, PhD

Boston University Metropolitan College Applied Business Analytics Program

## Executive Summary

- Job Prospect Overview and Job Market Self Service Consultation Dashboard were created to enhance BU MET ABA Career Service endeavor.
- The dashboard were developed using Extract, Transform, and Load framework and leveraging the existing BU MET infrastructure.
- The dashboard contained information regarding the current job market landscape including but not limited to Skill, Industry, Company, Location, and Occupation information related to Business Analytics program.
- The dashboard is now online at BU MET ABA Career Service website for immediate utilization by BU MET ABA Student and Graduate
- Link to BUMETT, Employability Services, Business Analytics



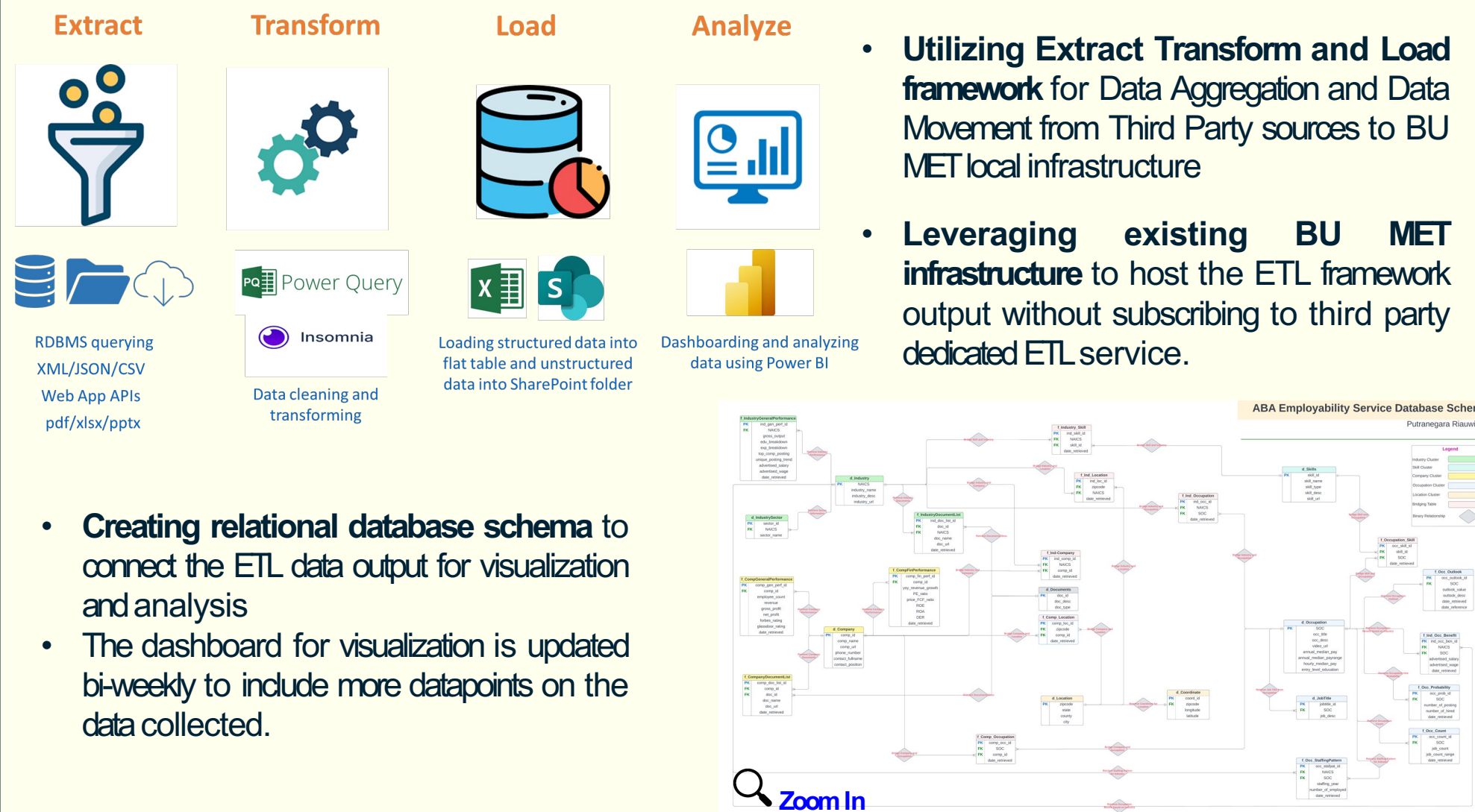
## Background Problem

- Specific, analytics-related, tailored industry and occupation information is not available for BU MET ABA students and graduates.
- Information is needed to navigate the job market with well informed decision to make the choice about their career path.
- Providing students and program with relevant information to close the gaps between what is required by the industry with the current skillset or program offering.

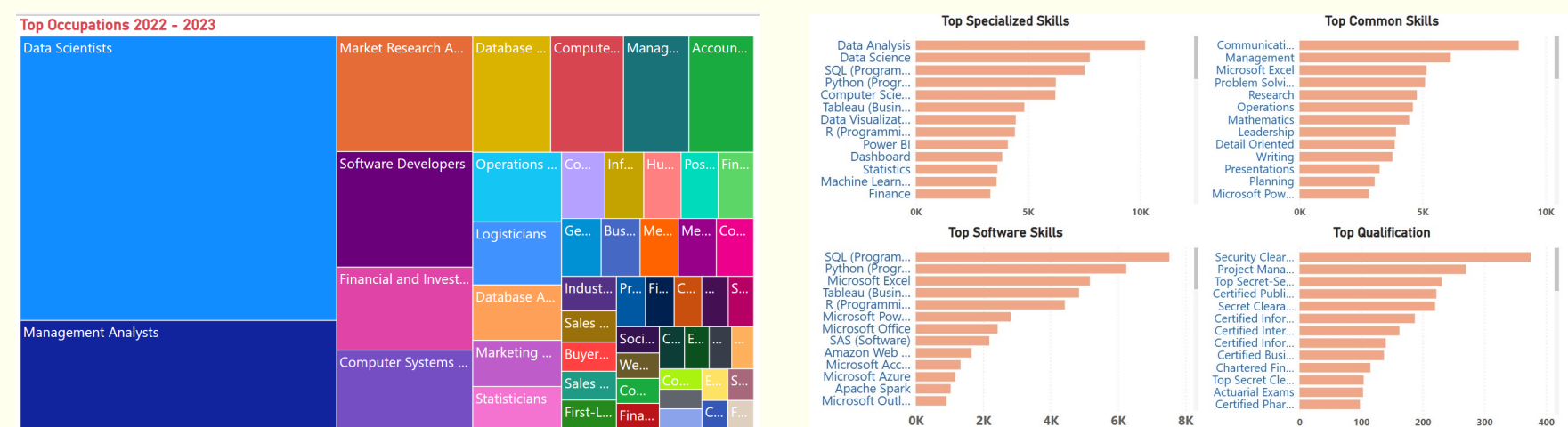
## Data Sources



## Methodology and Process



## Analytics Job Prospect Overview Dashboard Sample



## Top Analytics Occupation

## Top Skills Requirement

## Analytics Job Prospect Overview Dashboard Sample

**Skills**

**Document Type**

**Industry Name**

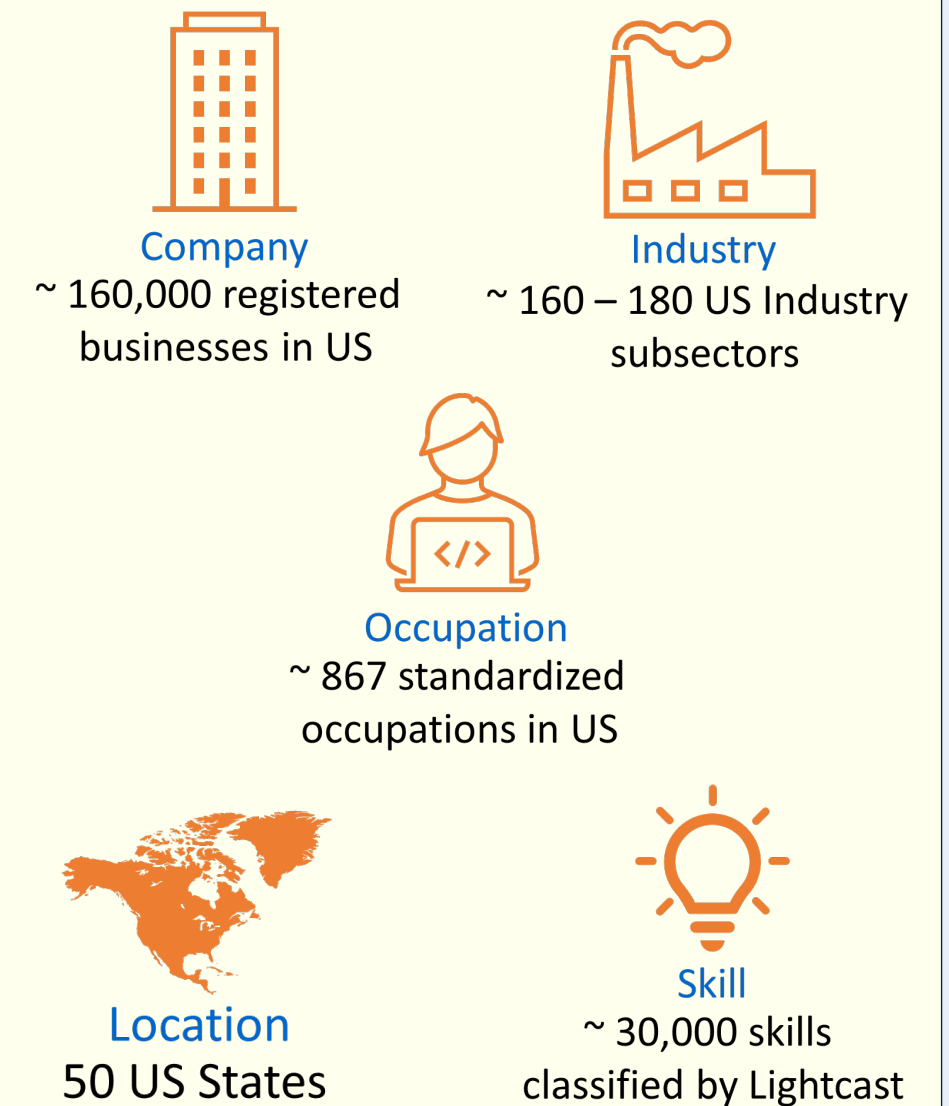
**Industry Gross Output in Million USD**

**Skill Page**

**Job Posting Reports Page**

**NAICS Industry Performance Page**

## Research Fun Facts



## Conclusion and Recommendation

- Analytics Dashboard as the output of the research is now online to serve ABA student and graduate at the BU MET ABA Career Service Website.
- The Dashboard is now helping ABA students and graduates to simplify searching and navigating the job market landscape, providing student with relevant information about the current update.
- Discussion on the potential impact of the Power BI dashboard on the analytics master's program and its students

## Contact information

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BU MET Applied Business Analytics Program

email: [abamet@bu.edu](mailto:abamet@bu.edu), program page: <https://www.bu.edu/admins/programs/applied-business-analytics/>



## Purpose

Companies hiring for analytics positions often conduct Technical Interviews as part of their hiring process, and Service 3 has created these simulations to simulate this type of interview. Each semester we offer interviews testing your knowledge in the following areas:

- Python
- Excel
- SQL
- Power BI
- R
- Tableau

## Strategy

- Review technical skills using Self-Service platforms
- Be a part of realistic coding environment process using Service 3
- Communicate Clearly and precisely
- Interpretation of results/ Multiple solutions
- Solicit feedback
- Analyse performance
- Ask questions/ Follow up consultations



## TECHNICAL INTERVIEW TIMELINE

**1 REGISTER**  
Register for Technical Interview on Blackboard

**2 INTERVIEW DAY**  
At 2pm ET, choose a topic, answer a question with provided data set within 45 mins

**3 PRESENTATION**  
15 mins is allocated complete the presentation to highlight the results

**4 SUBMISSION**  
Code and PowerPoint Slide Submissions

**5 REVIEW**  
3:00 to 5:00 PM : Live Presentations with the Panel to review the performance and obtain recommendations

## BENEFITS



**01**

**PRACTICE**  
Provides practice to improve skills and problem-solving abilities for real interviews

## FEEDBACK

Offers valuable feedback to identify areas for improvement

**02**

**03**

**FAMILIARITY**  
Increases familiarity with common interview questions and problems

## TIME MANAGEMENT

Develops time management skills and ability to solve problems efficiently in a given time frame.

**04**

## Results

### Recording Library



### Key Observations from Spring 2023

Side A	Side B	Length of hypotenuse
3	4	5
5	12	13
15	20	25
9	12	15
18	24	30

`=LAMBDA([string], UPPER(string))`

`=HYP(A4,B4)`

## Self-Service



**LeetCode** offers a large collection of coding problems and challenges.



**HackerRank** provides coding challenges and skills assessments across a variety of domains and languages.



**Strata Scratch** is an online platform that offers SQL and Python practice exercises, as well as a library of real-world datasets for data science projects and interview preparation.



**Top coder** offers coding competitions and challenges to help you improve your skills.

## Contact

MET ABA Employability Services [abamet@bu.edu](mailto:abamet@bu.edu)

Applied Business Analytics Page



Jhanavi Shekar





# MET Preparatory Laboratories for Student's Motivation and Employability

MET Educational Technology & Innovation Team and Department of Administrative Sciences

## Credentials Go Digital!

Digital credentials come in two main forms: certificates and badges. Certificates are typically used to attest to the completion of an academic activity. They can be a printed document or a computer file that are shared e.g. over email. Certificates always contain the individual and completed academic activity's name.



Figure 1. AD100 Pre-Analytics Laboratory Certificate of Completion

Badges are icons that exist only in electronic form. They typically confirm that an individual holds specific qualifications and possesses certain skills. Badges are similar to medals – they do not display names; instead, they are associated with credentials, and ownership of the badge “transfers” these credentials to the badge owner. Badge ownership is verified online through trusted authorities. Badge icons can be placed on a variety of electronic documents (emails, PDF files, personal web pages) or attached to social network profiles (Facebook, LinkedIn, etc.)



Figure 2. Digital Badge Icons.

## Improving Certificate Management

The traditional process of distributing paper certificates burdens academic institutions with many manual steps: determining eligibility, filling out and printing forms, mailing the forms, responding to queries, etc. Switching to digital documents avoids printing and mailing, but does not eliminate other inefficiencies. MET developed a secure automated process to manage certificates, from determining eligibility to distribution.

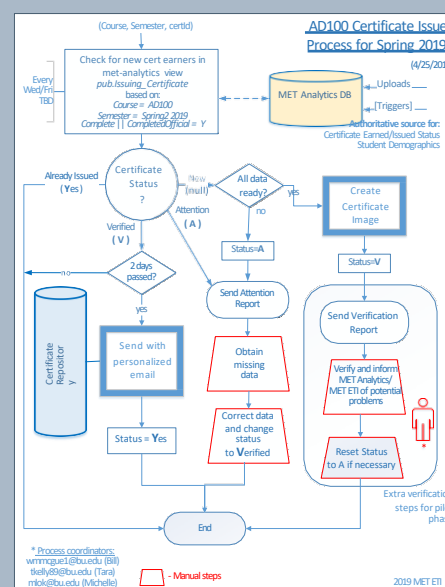


Figure 3. Automatic certificate generation and distribution process with exception management.

## Automating Routine Communications

Automating the certificate management process created opportunities to extend automation to other routine communications with students. Intelligent and timely communications increase student motivation and allow faculty to spend more time on teaching and less on administration.

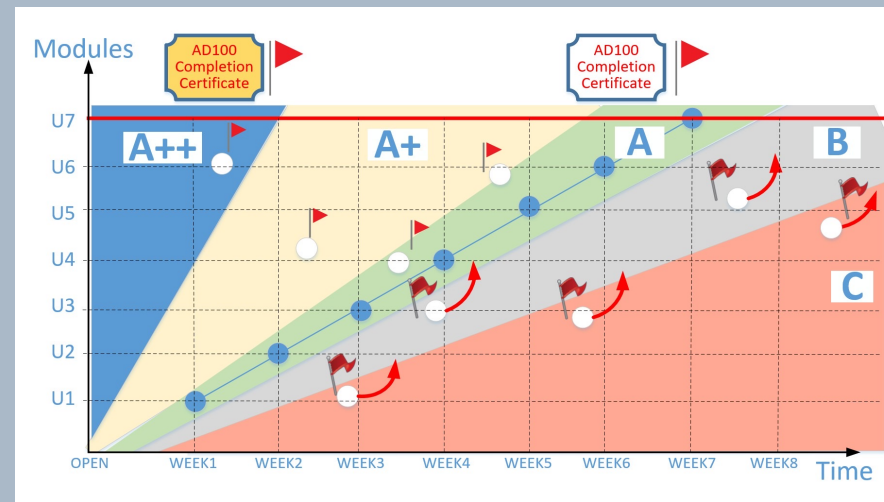


Figure 4. Automated performance measurement and guidance.

## Digital Badges and Hands-On Laboratories

To help students find jobs, MET enriches academic programs with hands-on interactive laboratories that simulate typical real-world business workflows and are built with tools and technologies widely used in the modern workplace. Digital badges that attest to qualifications earned by completing the laboratories are a great addition to academic diplomas and certificates of completion. These badges tell potential employers that candidates can start making valuable contributions right after employment.

The greatest challenges with introducing digital badges in academic programs is proper mapping of program materials into industry-recognized skills, developing hands-on activities, and efficient testing mechanisms.

As MET is working on addressing these challenges, “mini-badges” has been introduced as an intermediate step. Mini-badges are internal credentials that recognize the successful completion of hands-on laboratories. Mini-badges are automatically generated, and students can see them in their courses hosted in a Learning Management System.

Instructors can see mini-badges of students enrolled in their courses, making sure students are well-prepared in mastering new material.

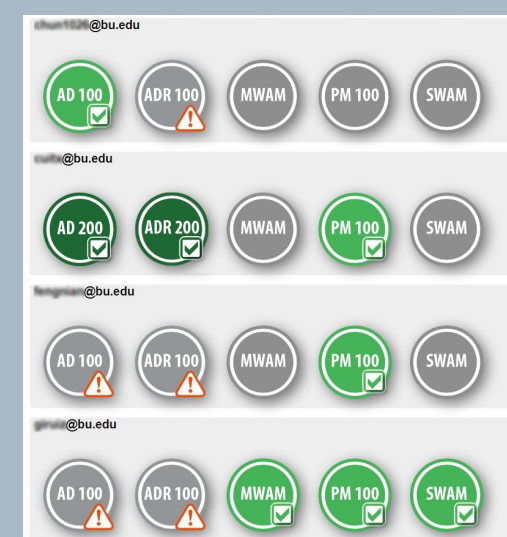


Figure 5. Fragment of an instructor dashboard showing earned, required, and optional badges for enrolled students (Student names are blurred to ensure privacy)

## Automatic Feedback and Grading

To address the challenge of confirming that students learned the skills associated with badge ownership, MET developed a highly interactive integrated system of assigning individual tasks to students, automatically grading their work, and providing intelligent feedback. Pseudo-random task assignment prevents plagiarism while encouraging group collaboration, and supports on-campus, online, and blended teaching and learning scenarios.

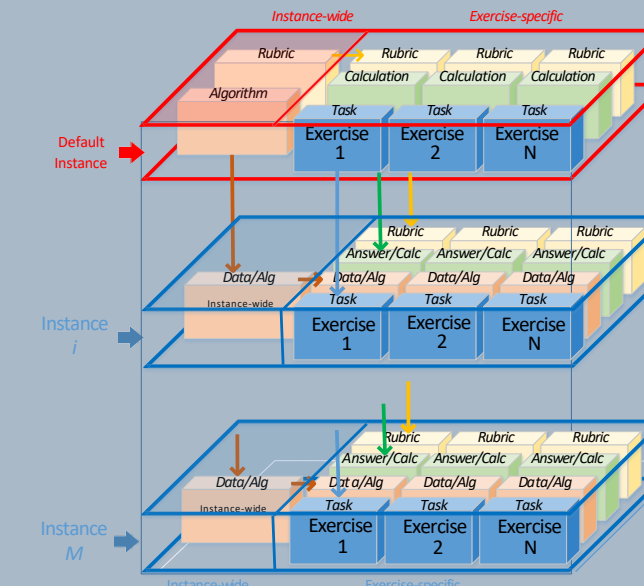


Figure 6. Randomized assignment of tasks and data samples.

Instantaneous feedback, grading, and real-time progress reporting facilitates learning, increases student motivation, and presents faculty with opportunities to present assignments in different modalities, including on-campus, online, and blended delivery.

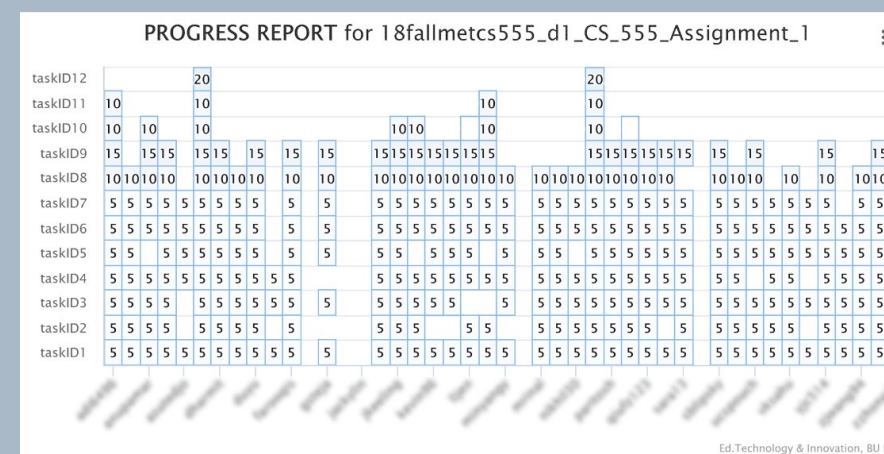


Figure 7. Real-time progress report (student names are blurred to ensure privacy)

## Rapid Content Development

With the focus on emerging industry needs, specific skills associated with digital badges are constantly evolving. To maintain industry relevance, MET must continuously develop and update teaching and learning materials. To assist faculty in this process, MET ETI team developed a streamlined process for team-based content development and deployment.

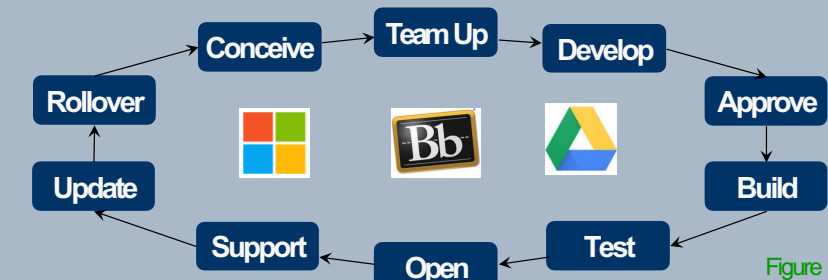


Figure 8.

## 2023 MET Preparatory Laboratories

### PM100



PM 100 is a non-credit lab, focused on project management essentials and tools. Students learn how to apply basic project management concepts aligned with the latest project management standards.

### PY100



Python for Business PY100, is a non-credit lab. Students learn how to understand basic Python techniques and write code to solve simple problems as this lab offers an introduction to the basics of Python with a focus on data analysis and finance.

### AD100



AD100 is a non-credit laboratory designed to familiarize students with relational databases and how to manipulate them in Microsoft Excel, Power BI Desktop, and Microsoft Visual Studio (using SQL).

### ADR100



ADR100 is a non-credit lab meant to serve one primary purpose – to build students' familiarity with the R language and programming environment. It is free to all BU MET students.

To view all MET Administrative Sciences Preparatory Labs, visit <https://www.bu.edu/admncsc/preparatory-labs/>

## Contact information

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# ABA@BU Social Media Strategy and Implementations:

## Instagram <https://www.instagram.com/metbu.aba/> #ABAstrong



Yating Wu (MS in ABA, January 2024)

Academic Advisors: Krystie Dickson and Vladimir Zlatev, PhD  
Boston University Metropolitan College Applied Business Analytics Program

Boston University Metropolitan College

### Social Media Strategy

To introduce a social media strategy for the Applied Business Analytics program's Instagram account, it's important to consider the program's goals and target audience.

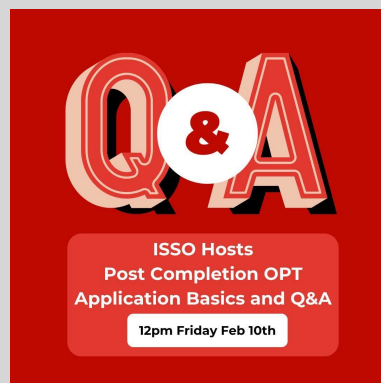
We planned strategy that aim to increase engagement and followers by creating visually appealing and informative content that resonates with the program's target audience.

One approach is to showcase the program's supportive services, current events, and business insights. The strategy also include regular posting, use of relevant hashtags, and engagement with followers by responding to comments and direct messages.

Additionally, collaboration with other relevant Instagram accounts and utilizing Instagram stories and reels can help to boost the program's visibility and engagement on the platform.

### Social Media Weekly Milestones

- First Post - Welcome to ABA
- Academic Orientation
- Advertise LinkedIn group
- Service 1 Announcement
- Service 2 Announcement
- Service 3 Announcement
- Hackathon Winners Announcement
- ISSO Hosts OPT Q&A
- MET Employability Website Launch
- ABA 5th Anniversary teaser
- BU Virtual Career Fair
- 'Link in Bio' Option
- ABA Student Spotlight
- Panel Discussion



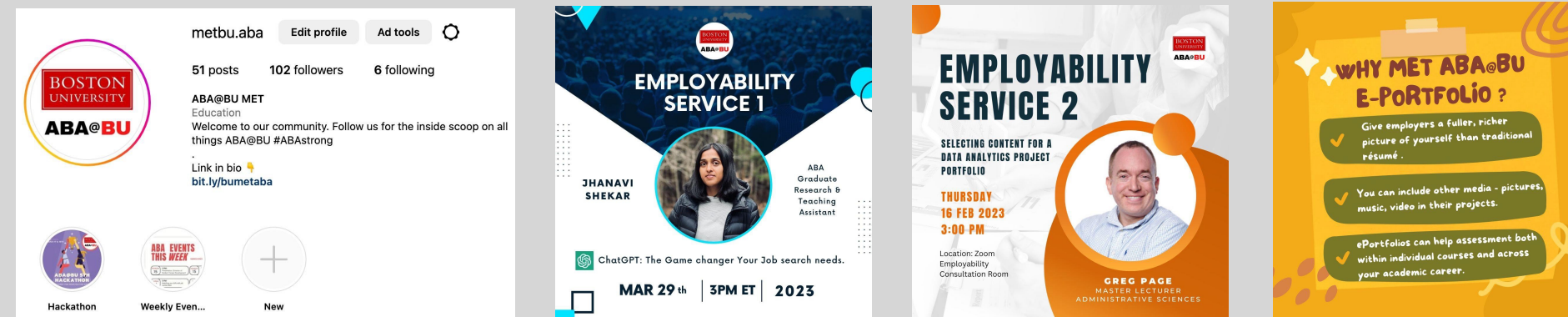
### Content

Welcome to the official Instagram account of the Applied Business Analytics (ABA) program! Our goal is to provide you with engaging and informative content that showcases the exciting opportunities and achievements of our program.

As a leading graduate program in business analytics, our curriculum is designed to prepare students with the skills and knowledge needed to excel in today's data-driven world. Our faculty members are experts in the field, and our students come from diverse backgrounds and industries. Together, we're shaping the future of business analytics and making an impact in the world.

Through our Instagram account, we aim to give you an inside look into the ABA program, including our classes, employability services, competitions, industry partnerships, and student experiences. We'll also keep you updated on events and news related to the program and the wider world of business analytics.

We invite you to follow us and join our community of students, alumni, faculty, and industry partners who are passionate about business analytics. Don't forget to like, comment, and share our posts to help spread the word about the amazing things happening at ABA!



### Posting Frequency

We understand the importance of keeping our followers engaged and informed on social media.

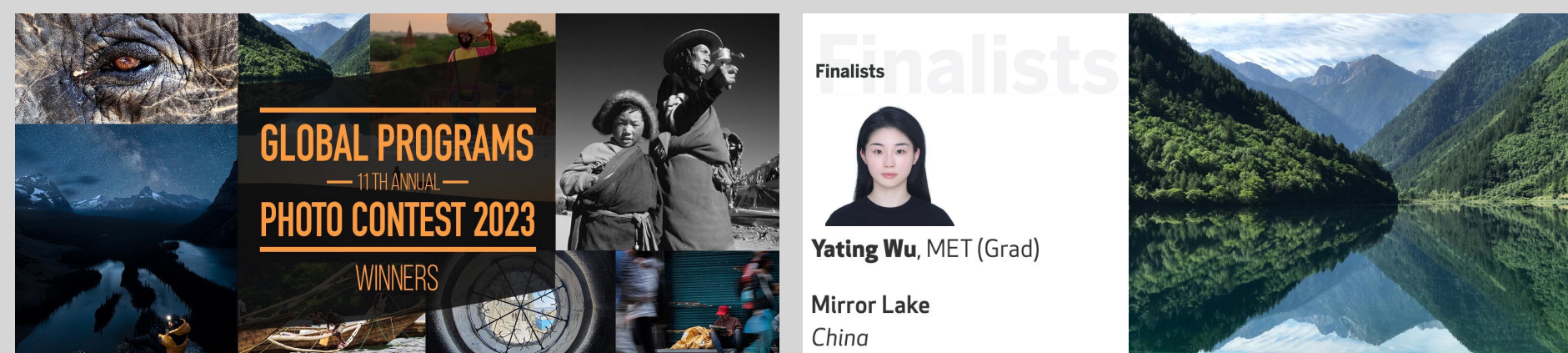
We will be posting weekly on our account to provide you with fresh and relevant content. Our posting schedule includes a mix of different types of posts, such as educational content, employability services, student and alumni spotlights, industry news and trends, events, and behind-the-scenes looks into our program.

We believe that regular posting is crucial for maintaining a strong online presence and building a community of engaged followers. By posting consistently, we hope to keep our audience up-to-date on the latest news and events related to ABA, and to foster a sense of connection and community among our followers.

So stay tuned for our upcoming posts, and don't forget to follow us to keep up with the latest from ABA!

### BU Global Programs Annual Photo Contest

Our MET ABA student, Yating Wu, congratulations on her achievement as a finalist in the BU Global Programs 11th Annual Photo Contest.



### Collaboration with metbu

We believe in the power of collaboration and partnerships to drive success and growth. That's why we were thrilled to partner with the @metbu Instagram account for a series of collaborative posts highlighting the different events such as Hackathon that is offered by the ABA program, Metropolitan College at Boston University.

Through our collaboration, we were able to share our insights and expertise in the field of business analytics with a wider audience, our partnership has helped to strengthen our collective brand and reputation. We look forward to future opportunities for collaboration and partnership, as we continue to work together to provide our students with the best possible education and career opportunities. Thank you to @metbu for the fantastic partnership!



### Insights

Our social media program has provided us with valuable insights into the preferences and interests of our followers, as well as the broader community interested in business analytics. Through our engagement with our followers, we have learned that educational content related to business analytics, student and alumni spotlights, industry news and trends, and behind-the-scenes looks into our program are particularly popular and engaging.

We have also learned that posting regularly and consistently is important for maintaining an active and engaged following. By listening to our followers' feedback and preferences, we have been able to tailor our content and posting schedule to better meet their needs and interests.

Moving forward, we will continue to apply these insights to our social media strategy, in order to provide our followers with the best possible experience and to grow our community of engaged and passionate business analytics enthusiasts.



## MARKETING ANALYTICS AT LOBSTER LAND

In *Marketing Analytics at Lobster Land: A Python-Based Approach to Data Exploration, Statistical Analysis, and Machine Learning*, Greg Page and Huey Fern Tay present a comprehensive, detailed approach to a broad array of technical and conceptual concepts in a fun, accessible way.

Set against the backdrop of Lobster Land – a fictional, seaside amusement park in southern Maine – this book takes the reader through everything from summary statistics to A/B testing methodologies to random forest modeling – all while emphasizing fundamental marketing concepts such as customer lifetime value, brand development, and user retention.

Included in *Marketing Analytics at Lobster Land* are step-by-step, Python-based solutions for all of the data visualizations, statistical analyses, and models contained within its pages – all of which assume no prior Python background on the part of the reader. Whether you are brand new to analytics and coding, or you are a professional with many years in the field, you will find value in the content here.

### GREG PAGE

is a Master Lecturer in the Applied Business Analytics program at Boston University, Metropolitan College. He has taught many courses in the fields of Analytics, Data Mining, and Machine Learning. Prior to entering academia, he served as an Intelligence Officer in the U.S. Navy and U.S. Army.

### HUEY FERN TAY

is a graduate student at Boston University's MSc (Applied Business Analytics) program. Prior to her admission to Boston University, Huey Fern worked as an analyst and a copywriter at a major public relations agency, after concluding a 12-year journalism career with Australia's national broadcaster and the country's international network.

MARKETING ANALYTICS AT LOBSTER LAND

GREG PAGE | HUEY FERN TAY

# MARKETING ANALYTICS AT LOBSTER LAND

A PYTHON-BASED APPROACH TO DATA EXPLORATION,  
STATISTICAL ANALYSIS, AND MACHINE LEARNING



GREG PAGE | HUEY FERN TAY

### Preface

About the authors

Report an error

0. Introduction

1. Exploring Data

2. Visualizing Data

3. Consumer Segmentation

4. Product Portfolio, Survey Data & Metric-Based Conjoint Modeling

5. Customer Lifetime Value, Brand Metrics, and Email Campaign Metrics

6. Experiment Design, A/B Testing, and Statistical Distributions

7. Understanding Classification Models and Assessing their Performance

8. Logistic Regression

9. From Single Trees to Random Forests

10. Pricing Analytics

11. Forecasting

12. Extracting Data from the Web

13. Text Analysis

14. Recommender Systems

15. Data Analytics in the Cloud

16. Advanced Modeling Techniques – Interaction terms

17. Entering the Field of Marketing Analytics

18. Conclusions

19. Datasets

20. Dataset descriptions

21. Videos

*Marketing Analytics at Lobster Land: A Python-Based Approach to Data Exploration, Statistical Analysis, and Machine Learning* is a textbook co-written by Greg Page and Huey Fern Tay, ©2023, Boston, MA, USA

Page is a Master's Lecturer at BU MET ABA, and Tay is a recent graduate of the ABA program (January 2023)

This textbook covers a wide range of topics related to Marketing Analytics, including consumer segmentation, A/B testing, churn modeling, and much more. It is currently being used as the AD654: Marketing Analytics course textbook.

The eBook is freely available at: [www.lobsterland.net](http://www.lobsterland.net).





# Identifying Sub-fields of Business English by Clustering Text Embeddings

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## Introduction

Business English is a popular field of English for Specific Purposes (ESP) as it helps non-English speakers better interact with business organizations across the world (Bhatia & Bremner, 2012). Understanding the structure of sub-fields of Business English is essential to improve education materials and contribute to facilitating business communications. This study aims to identify sub-fields of Business English by clustering academic works based on text embeddings.

We analyzed 3,096 works tagged with the concept “Business English” and classified as “journal-article” in OpenAlex (Priem, Piwowar & Orr, 2022). The data were retrieved on July 7, 2022. In OpenAlex, the only lower-level concept of “Business English” is “English as a lingua franca”, which does not reflect the knowledge structure of Business English so that confirms the importance of this study.

To identify sub-fields of Business English, SPECTER (Cohan et al., 2020), a pre-trained embedding model specialized for scientific texts, was used for converting the concatenation of the title and the abstract of a paper into an embedding vector. The embeddings for all target journal articles were clustered through BERTopic (Grootendorst, 2022) to assign the articles into sub-fields. The sub-fields were labeled by the authors and drawn on a tree map.

## Bibliometric Analysis

Table 1 lists the top 5 journals with respect to the number of articles in Business English. “The Bulletin of the Association for Business Communication”, “The Journal of Education for Business”, “Business Communication Quarterly” and “Journal of Business Communication” are international journals.

“Overseas English” is managed by Chinese researchers.

Across all journals in the data, 54% of authors are affiliated with Chinese institutions out of 2,330 authors after we manually filled in the missing information of authorships in OpenAlex to make sure that country information is complete (followed by the United States – 18%, Russia – 3%, and the United Kingdom – 2%). These observations suggest that Business English has two main groups: one consisting of learners and educators in China and the other consisting of educators in English-speaking countries.

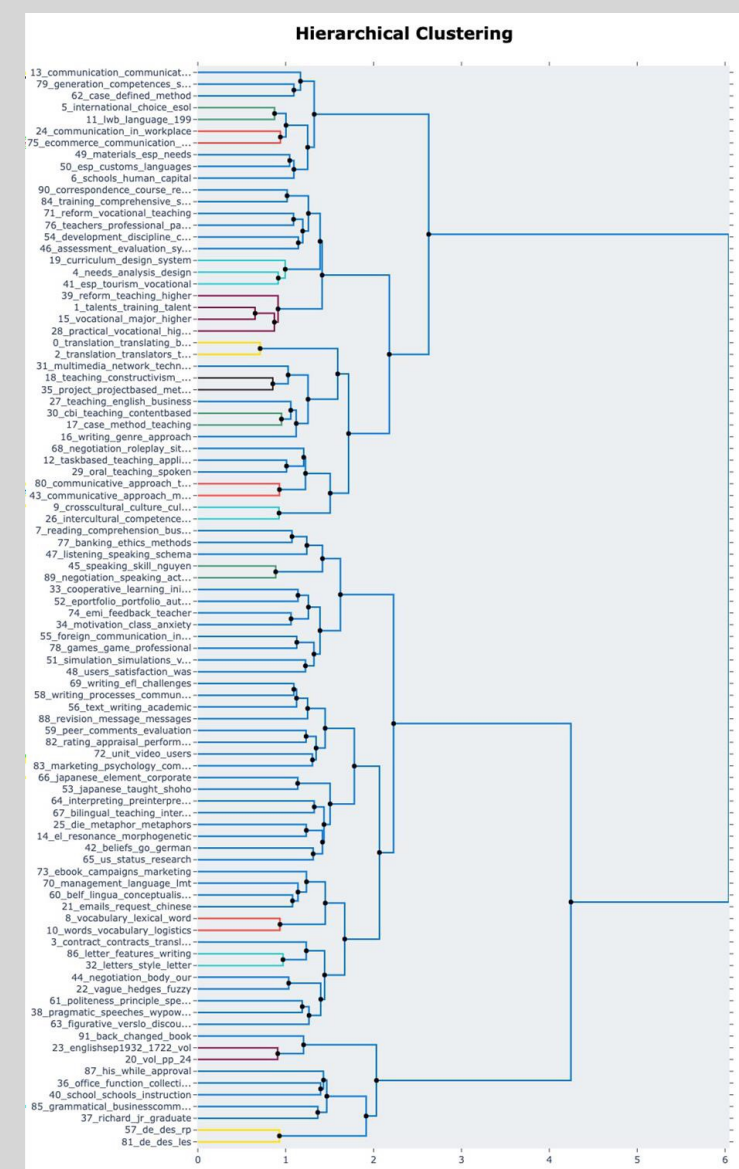
Table 1

Journal	Counts
The Bulletin of the Association for Business Communication	101
Overseas English	80
The Journal of Education for Business	72
Business Communication Quarterly	66
Journal of Business Communication	55

## Clustering and Labeling

Next, we parsed the title and the abstract for each article and vectorized the texts through SPECTER (Cohan et al., 2020). As a task of grouping similar objects together, clustering allows us to categorize articles and interpret them as sub-fields of Business English. Using BERTopic (Grootendorst, 2022), we visualized the hierarchical structure of clusters in Figure 1. We labeled each cluster and its parents in the hierarchical structure based on title, abstract, and frequent words (Figure 2).

Figure 1



## Interpreting the Sub-fields

Business English is divided into two sub-fields, Learning and Teaching. Learning includes Learning Process, Business Writing, and Materials setting off from the side of students.

English Skills including listening, reading, and speaking are what students practice while learning Business English.

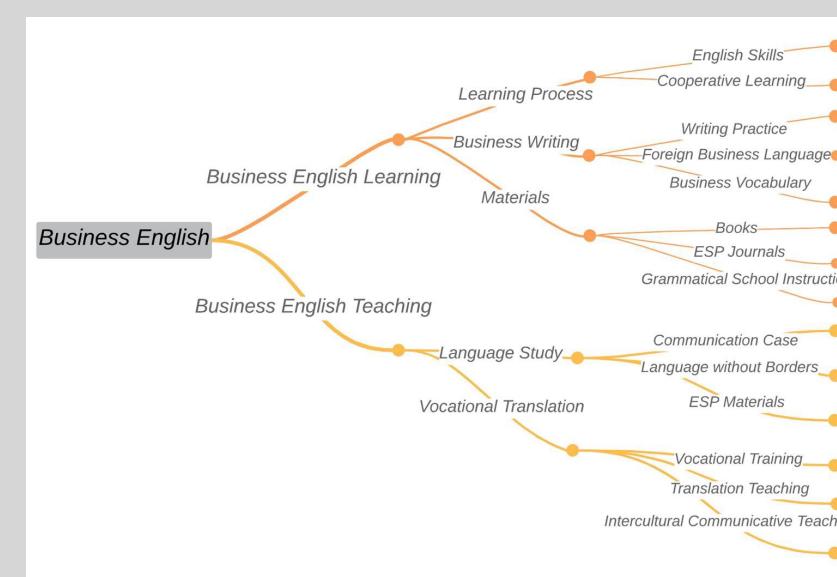
Cooperative Learning is the method for better practice.

When studying Business English writing, students not only need to practice writing itself but also are required to expand their business vocabulary and understand foreign business languages to conduct bilingual interpretations. Books, ESP journals, and grammatical school instructions are the types of learning materials that students use for reference.

Teaching in Business English comprises Language Study and Vocational Translation with teachers being dominant in this branch. Communication Case is to teach communication courses with the case method. Language without borders internationalizes Business English by placing communication under multilingual contexts. ESP materials provide guiding support for teaching. Vocational Translation covers vocational training, translation teaching and intercultural communicative teaching. Vocational Training focuses on the cultivation of talents for teaching Business English.

Translation Teaching intends to improve the candidates' capabilities of Business English translation by integrating pedagogical theories and multimedia technology into teaching methods. Intercultural Communicative Teaching aims to teach Business English with intercultural and communicative purposes.

Figure 2



## Implications

This study provides guidance for both Business English educators and learners. Business English educators, such as teachers and instructors, can be informed of teaching content and improve their teaching methods by referring to our interpretation. For students or business professionals, who are interested in Business English, our study enables them to be familiar with subjects so they would be more capable of applying acquired knowledge in workplaces.

## Conclusion

This study identifies sub-fields of Business English by clustering academic works with a text embedding method. The identified sub-fields represent the knowledge structure of Business English well and are expected to strengthen Business English education.

## Acknowledgement

The authors appreciate Boston University Metropolitan College for providing a research assistantship to Yijing Gu for this study.

## References

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ABA Program Page: <https://www.bu.edu/adminsc/programs/applied-business-analytics/>



# Climate Change Narratives of Organizations Funded by ExxonMobil

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 1010 Commonwealth Avenue, Boston, MA 02215

## Background

### Introduction of ExxonMobil:

ExxonMobil is an American multinational oil and gas corporation that holds the title of the largest investor-owned oil company and one of the big oil companies in both production and market value.

ExxonMobil had extensive knowledge of the climate disruption caused by fossil fuel pollution, but instead of taking the social responsibilities, the company chose to finance an elaborate campaign to cast doubt on the issue (Desmog, n.d.).

From 1998 to 2017, ExxonMobil funded more than 36 million dollars for 69 organizations (Union of Concerned Scientists, 2017). Among them, 50 organizations registered their official Twitter accounts and frequently tweeted about climate science and climate policies.

### Top 4 Exxon Funded Organizations:

- U.S. Chamber of Commerce (67%)
- American Enterprise Institute (11%)
- Manhattan Institute (8%)
- American Legislative Exchange Council (4%)



## Data and Methodologies

### Data Resource and Introduction:

The Twitter API, a programmatic access to retrieve and analyze Twitter data, was utilized to access the Twitter accounts of 50 organizations that received funding from ExxonMobil.

Twitter API accessed approximately 1.4 million tweets from these organizations posted from November 2007 to December 2022. The collected tweets were filtered based on the 32 selected climate change-related keywords. See Figure 1. It results in 34,433 tweets. After removing duplicate tweets, we ended up with 22,940 tweets for our further analysis.

re.sub() function from the Regular Expressions (re) was utilized to preprocess text data.

adaptation	carbon dioxide equivalent	global average temperature	ocean acidification
aerosols	carbon sequestration	global warming	ozone
anthropogenic	climate	greenhouse effect	radiative forcing
biodiversity	climate change	greenhouse gases	renewable energy
biofuel	deforestation	hydrologic cycle	stratosphere
biomass	emissions	ipcc	weather
carbon cycle	evapotranspiration	methane	weather
carbon dioxide		mitigation	weather

Figure 1.1

Figure 1.2

Figure 1.3

Figure 1.4

## Data and Methodologies

- Preprocessing Text Data: module in Python to clean the tweet text by removing URLs, hashtags, punctuations and special characters, numbers, and multiple whitespaces.
- Word Embedding: Applying Google's T5 (Raffel et al., 2020) from the SentenceTransformer model in Python that takes a string (text) as input and returns a 768-dimensional vector as output
- Classification: Utilizing community\_detection function from the util package of "Sentence-Transformers" with text embeddings to identify clusters (<https://www.sbert.net/index.html>)
- Visualization: Apply UMAP (Uniform Manifold Approximation and Projection; McInnes et al., 2020), a dimension reduction technique, to visualize cluster results.

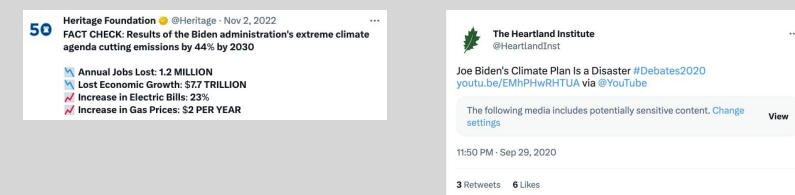
### Analysis Direction:

- Identify topics on all filtered tweets in general
- Identify topics on tweets posted by each organization

## Climate Change Misinformation Topic 1

### Topic 1: Biden's energy plan hurts economic growth

Example Tweets screenshot:

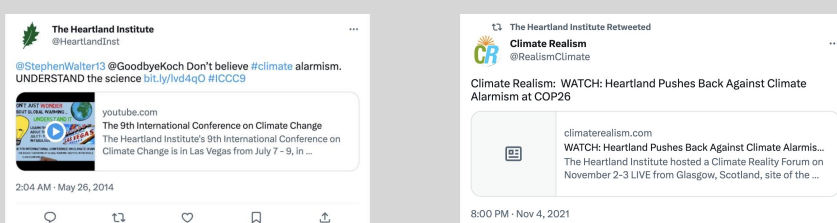


## Climate Change Misinformation Topic 2

### Topic 2: Climate change is not threatening

Despite some natural causes, it's proven that human activities accelerate climate change and impact the whole world. The global surface temperature goes up with the accumulation of greenhouse gas concentrations, resulting in more hot days and heat waves. Climate change is threatening the world along with more severe storms, increased drought, rising ocean, loss of species, more health risks, no enough food and poverty and displacement (source from United Nations|Climate Action). We identified a significant cluster advocating that climate change is not threatening. However, the cluster claimed that climate change is not threatening and it is alarmist.

Example tweets screenshot:



## Classification Results for All Tweets

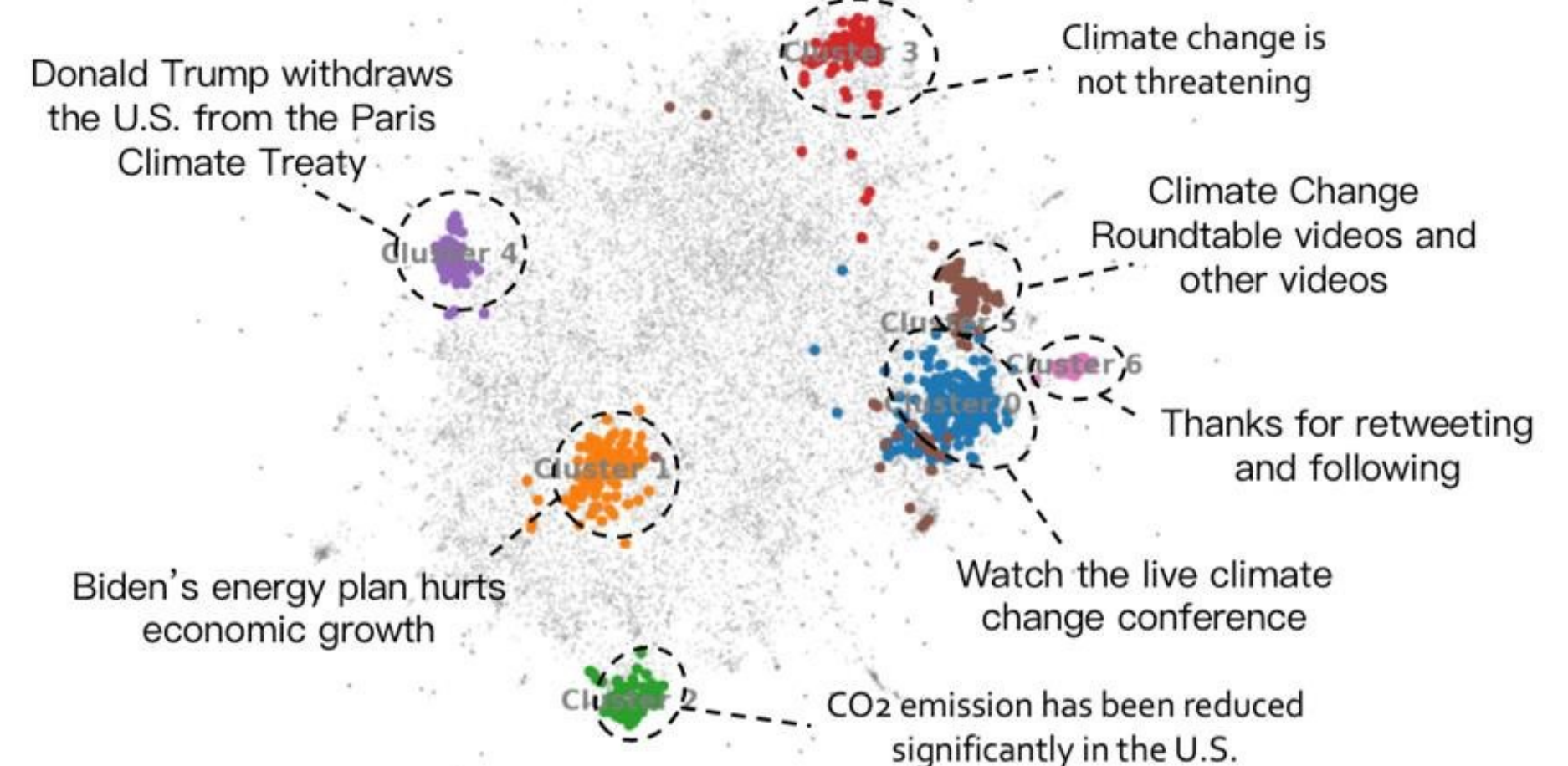


Figure 2

The optimal parameters for 'min\_community\_size' and 'threshold' in the 'community\_detection' function were determined as 100 and 0.85 respectively, from which 7 clusters were identified.

From manually investigations, the main topics of each cluster were identified and shown in the Figure 2.

## Introduction of Top Contributor of Climate Change Misinformation - Heartland Institute

The Heartland Institute is one of the world's leading free-market think tanks. It is a national nonprofit research and education organization based in Arlington Heights, Illinois. Its mission since its founding in 1984 is to discover, develop, and promote free-market solutions to social and economic problems. (Source from Heartland Institute website)

After removed duplicated tweets, we collected 3,897 tweets posted by Heartland Institute since Nov. 2017 to Dec. 2022, from which we identified 9 clusters with our model and almost each cluster talked about climate change misinformation. It claimed that climate change is alarmist and it's not threatening. It even created own Heartland Daily Podcast to spread climate change misinformation and fake science about climate change.



## References

Heartland Institute Website: <https://heartland.org>

McInnes, L., Healy, J., & Melville, J. (2018). UMAP: Uniform manifold approximation and projection for dimension reduction. arXiv preprint arXiv:1802.03426.

Raffel, C., Shazeer, N., Roberts, A., Lee, K., Narang, S., Matena, M., ... & Liu, P. J. (2020). Exploring the limits of transfer learning with a unified text-to-text transformer. The Journal of Machine Learning Research, 21(1), 5485-5551.

United Nations|Climate Action: <https://www.un.org/en/climatechange/science/causes-effects-climate-change>

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# Assessing the Veracity of Climate Change Information on Twitter

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## Abstract

This research investigates the dissemination of false and misleading information related to climate change on social media, while examining key contributors and influencers responsible for propagating such deceptive content. Disinformation on social media platforms poses a challenge as it is often presented in a complex and convoluted manner, making it difficult to discern. Furthermore, entities with intentions to deceive may collaborate with other organizations to amplify their messages. Our study analyzes climate change-related tweets from 2008 to 2023, utilizing machine learning algorithms to identify and categorize misleading claims based on the CARDS system of climate change misinformation super-claims proposed by Coan et al., 2021. We employ a two-way coding method, comparing cosine similarity with human coding, and achieve approximately 75% overlap between the techniques. We also examine the Twitter activity of organizations funded by ExxonMobil and scrutinize their messaging to identify narratives. Additionally, we pinpoint prominent Twitter accounts that frequently post misinformation and investigate the accounts that propagate this content via retweets, employing a network analysis approach.

## Background

In today's digitally connected world, social media platforms have become integral to the dissemination of information, shaping public opinion and discourse on various subjects, including climate change. However, the vast and unregulated nature of these platforms has led to a proliferation of misinformation, with climate change being no exception. As this global crisis intensifies, the spread of misleading and false information on social media has the potential to undermine scientific consensus, hinder public understanding, and stall necessary policy action. It is crucial to identify and combat the sources and spread of climate change misinformation on social media to foster informed decision-making and encourage meaningful action. This research aims to investigate the dynamics of misinformation dissemination on social media, scrutinize the key contributors and influencers perpetuating such falsehoods, and provide insights into the narratives and strategies employed to mislead the public on the issue of climate change.

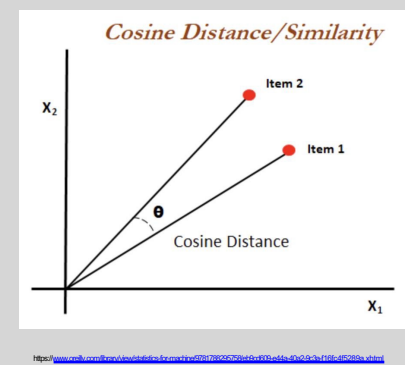


**John Ruddick**  
@JohnRuddick2

Global warming is not happening.

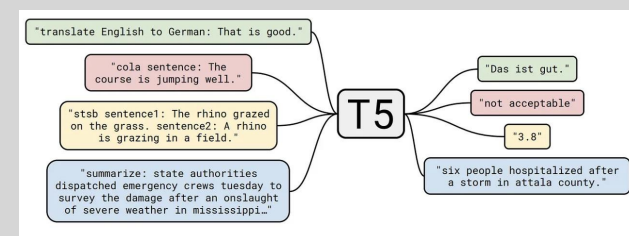
## Track 1: Text Similarity Approach

We hypothesized that tweets of which semantics are highly similar to a misinformation claim likely contain the claim in texts. To measure semantic similarity between tweets and claims, we converted all tweets and simplified claims into embedding vectors by using Google's T5 model. This model was pre-trained on the extensive C4 dataset, comprising over 750GB of cleaned and filtered web text from the Common Crawl archive, which allowed T5 to develop a rich understanding of language patterns and structures. The model was subsequently fine-tuned on various downstream NLP tasks, resulting in state-of-the-art performance across numerous benchmarks (Raffel et al., 2020).



## Google T5 sentence embeddings

The Google T5 model is a versatile and powerful NLP model based on the transformer architecture, excelling in various tasks like translation, summarization, question-answering, and sentiment analysis. By using a unified text-to-text input-output format and leveraging the C4 dataset for pre-training, T5 achieves state-of-the-art results across multiple benchmarks, making it an effective choice for language understanding and generation challenges.



Raffel et al., 2020

## Results

We computed the cosine similarity between the embeddings of simplified claims and tweets. We selected the top 20 tweets with the highest cosine similarity scores in each subclaim to create an initial version of the survey. For example:

Superclaim	subclaims	Keywords for collecting the tweets	anchors	tweets	Cosine similarity
Global warming is not happening	Heading into ice age	global warming (head OR heading) ice age	heading into ice age	Somebody said something about global warming. Feels like ice age is coming #FreezingCold https://t.co/ltY3yP6JfL	0.8942
Climate solutions won't work	Politics are harmful	climate (policy OR policies) (harm OR harmful)	policies are harmful	Some policies to fight climate change have done more harm than good http://t.co/HFBuVXNDz	0.8760

## Track2: Machine Learning Approach with CARDS

The CARDS (Climate Advocacy, Research, and Discourse Systems) model is a novel approach for systematically categorizing and analyzing climate change discourse based on a hierarchical taxonomy of contrarian claims and counterclaims. By combining

machine learning with expert annotators, the model classifies over 32,000 paragraphs of text from various sources, such as contrarian think tank reports, into super-claims and sub-claims. This comprehensive and fine-grained analysis of climate discourse allows researchers and policymakers to better understand the dynamics of the climate debate and develop effective communication strategies.

Claim Code	Claim label
1	Global warming is not happening
1.1	Ice isn't melting
1.2	Heading into ice age
1.3	Weather is cold
1.4	Winters in warming
1.5	Oceans are cooling
1.6	Sea level rise is exaggerated
1.7	Extremes aren't increasing
1.8	Changed the name
2	Human Greenhouse Gases are not causing global warming
2.1	It's natural cycles
2.2	Non-Greenhouse Gas forcings
2.3	No evidence for Greenhouse Effect
2.4	CO <sub>2</sub> not rising
2.5	Emissions not raising CO <sub>2</sub> levels
3	Climate impacts are not bad
3.1	Sensitivity is low
3.2	No species impact
3.3	Not a pollutant
3.4	Only a few degrees
3.5	No link to conflict
3.6	No health impacts
4	Climate solutions won't work
4.1	Policies are harmful
4.2	Policies are ineffective
4.3	Too hard
4.4	Clean energy won't work
4.5	We need energy
5	Climate movement/science is unreliable
5.1	Science is unreliable
5.2	Movement is unreliable
5.3	Climate is conspiracy

Coan et al., 2021

## How do we leverage CARDS?

We applied the CARDS model to a dataset of 680k cleaned tweets from 2007 to 2023, categorizing them into 17 sub-claims. Using the Twitter Academic API and search queries, we gathered 1.44 million tweets and leveraged the original CARDS training set to rebuild the model and assess its performance on this social media dataset.

```
# super claim 1
#claim1_1: 'global warming (happen OR happening)'.
#claim1_1: 'global warming (ice melt OR melting)'.
#claim1_2: 'global warming (head OR heading) ice age'.
#claim1_3: 'global warming weather cold'.
#claim1_4: 'global warming natur'.
#claim1_5: 'global warming (ocean OR oceans) (cool OR cooling)'.
#claim1_6: 'global warming sea level rise (exaggerate OR exaggerated)'.
#claim1_7: 'global warming (extreme OR extremes) (increase OR increasing)'.
#claim1_8: 'global warming (change OR changed) name'.
# super claim 2
#claim2: 'Human greenhouse (gas OR gases) (cause OR causing) global warming'.
#claim2_1: 'global warming natural (cycle OR cycles)'.
#claim2_2: 'greenhouse (gas OR gases) (frost OR freezing)'.
#claim2_3: 'evidence greenhouse effect'.
#claim2_4: 'too rise OR rising'.
#claim2_5: '(emission OR emissions) (base OR raising) (oil level OR levels)'.
# super claim 3
#claim3: 'climate (impact OR impacts) bad'.
#claim3_1: 'climate sensitivity low'.
#claim3_2: 'climate species impact'.
#claim3_3: 'climate pollutant'.
#claim3_4: 'climate (degree OR degrees)'.
#claim3_5: 'climate conflict'.
#claim3_6: 'climate health (impact OR impacts)'.
# super claim 4
#claim4: 'climate (solution OR solutions) won't'.
#claim4_1: 'climate (policy OR policies) (harm OR harmful)'.
#claim4_2: 'climate (policy OR policies) (effective OR ineffective)'.
#claim4_3: 'climate (policy OR policies) hard'.
#claim4_4: 'clean energy won't'.
#claim4_5: 'need energy (fossil OR nuclear power)'.
# super claim 5
#claim5: 'climate (move OR movement OR science) unreliable'.
#claim5_1: 'climate science unreliable'. # included in the super claim 5
#claim5_2: 'climate movement unreliable'. # included in the super claim 5
#claim5_3: 'climate conspiracy'
```

## Initial Results

To assess the prediction performance, we chose a sample of 30 tweets from each group, resulting in 540 tweets. We employed the majority rule to label our data, assigning three labels per tweet. So far, we have successfully manually labeled 150 tweets, achieving approximately 60% accuracy.

## Next Step

For the Track 1: Upon obtaining our initial dataset, which comprises tweets exhibiting high cosine similarity to the anchor tweets (i.e., potentially containing misinformation), we plan to engage the broader community of Boston University for assistance in the labeling process. By transforming our dataset into a survey, we aim to leverage the collective expertise of the community in identifying tweets that our algorithm deems likely to be misinformation related to climate change. We will initially launch the survey within Metropolitan College, followed by a broader rollout to the entire Boston University community. The outcomes of this survey will offer valuable insights into the quality and characteristics of our dataset, ultimately aiding our understanding of climate change misinformation on social media platforms.

For the Track 2: In order to evaluate the performance of the CARDS model and develop a high-quality dataset, we will persist in undertaking the labeling task. Subsequently, our objective is to construct a classifier capable of detecting misinformation in tweets. To achieve this, we will explore various transformer architectures and employ advanced techniques in order to enhance accuracy and performance.

## Reference

Coan, Boussalis, C., Cook, J., & Nanko, M. O. (2021). Computer-assisted classification of contrarian claims about climate change. *Scientific Reports*, 11(1), 22320–22320. <https://doi.org/10.1038/s41598-021-01714-4>

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## Contact Information

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# ABA @ BU End of Spring 2023 Research Seminar



WHEN Friday, April 28, 2023, at 3 pm ET

WHERE 928 Commonwealth Avenue, SHA Building, Auditorium (1<sup>st</sup> floor)



Boston University Metropolitan College

ZOOM link

<https://bu-metcollege.zoom.us/j/841743177?pwd=MzJPRXRZTysvR0lrcWJrWWh6THBGQT09>

## 3:00 to 3:40 pm SESSION 1: Research Achievements by ABA Students, AY 2022 - 2023

**Research Project:** ABA@BU Employability Consultations: Methodology, Applications, Services to MET Community

Research Assistants:

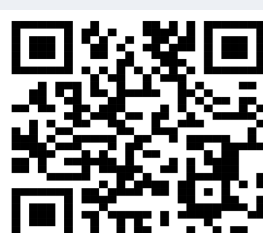
Putranegara Riauwindu MS in ABA (January 2024)  
Anu Shinebayar MS in Project Management (May 2024)  
Jhanavi Bysani MS in ABA (May 2023)  
Yating (Molla) Wu MS in ABA (January 2024)

Academic Advisors:

Krystie Dickson, Lecturer, ABA  
Dr. Cansu Tayaksi, Assistant Professor, ABA  
Dr. Chris Athaide, Assistant Professor, ABA  
Dr. Vladi Zlatev, Associate Professor of the Practice, ABA

Published Results (Websites and Posters):

- BU MET ABA Employability Consultation Services  
<https://www.bu.edu/met/career-development/business-analytics/>
- 5Y ABA@BU Anniversary Celebration on April 21, Poster Session



**Research Project:** Assessing the Veracity of Climate Change Information on Twitter; Climate Change Narratives of Organizations

Research Assistants:

Luyao Wang, MS in ABA (January 2023) Yunlou Teng, MS in ABA (January 2023)  
Yixiao Wang, MS in ABA (January 2023) Xiaoyun Li, MS in ABA (January 2023)

Academic Advisors:

Dr. Hyunuk Kim, Assistant Professor, ABA  
Dr. Irena Vodenska, Professor, Financial Management

Published Results:

- 5Y ABA@BU Anniversary Celebration on April 21, Poster Session



**Research Project:** Identifying Sub-fields of Business English by Clustering Text Embeddings

Research Assistant:

Yijing Gu, MS in ABA (May 2023)

Academic Advisor:

Dr. Hyunuk Kim, Assistant Professor, ABA

Published Results:

- 5Y ABA@BU Anniversary Celebration on April 21, Poster Session



## 3:40 to 3:45 pm SESSION 2:

### Announcements - Individual Student Preparation for Summer 2023

Study Plans & Live Academic Consultations

ABA@BU Employability Consultations (Apr - Aug)

STEM training options:

CPT for current ABA students or OPT for ABA grads

Service #1  
Service #2  
Service #3



## 3:45 to 4:30 pm SESSION 3, PANEL DISCUSSION

### Chat GPT and the Future of Education & Business Analytics

RESOURCES: ABA Program Webpage



Moderator:

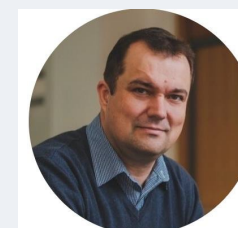


**Vladi Zlatev** Coordinator of MS in ABA and GC in ABA at BU MET  
<https://www.bu.edu/met/profile/vladimir-zlatev/>  
<https://www.linkedin.com/in/vladimir-zlatev-249a9a162/>

Panelists:



**Judah Phillips** Entrepreneur, Founder <https://quarkai.com>, BU ABA Adjunct Professor, ABA Courses Co-Developer (2018) AD654, and AD688, Author eCommerce Analytics, Building a Digital Analytics Organization, Digital Analytics Primer  
<https://www.linkedin.com/in/judahphillips/>  
<https://www.thriftbooks.com/a/judah-phillips/2004240/>



**Penko Ivanov** Principal Business Analyst at Financial Times, BU ABA Course Co-Developer (2018) AD699, Guest Lecturer ABA OL Facilitator AD699 and AD616  
<https://www.linkedin.com/in/penkoivanov/>



**Suresh Kalathur** Director of Analytics Programs at BU MET  
<https://www.bu.edu/met/profile/suresh-kalathur/>  
<https://www.linkedin.com/in/suresh-kalathur-3136a93/>

### Applications of Chat GPT at BU MET: Live Demonstrations



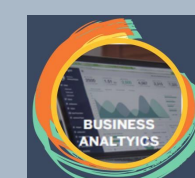
**Jhanavi Bysani** MS in ABA (May 2023), Graduate Research Assistant, ABA@BU Employability Consultant (services #1 and #3)  
<https://www.linkedin.com/in/jhanavi-bysani-shekar-2b5898224/>



**Sree Kumar** MS in ADA (January 2024), Graduate Assistant, MET ET1, Pseudo-Random Task Assignment, Automatic Feedback & Grading  
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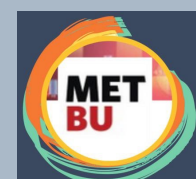
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