

# Julian Benitez Mages

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## EDUCATION

**Northeastern University – Khoury College of Computer Sciences** | Boston, MA Expected: **May 2025**

*Candidate for a Master of Science in Data Science*

Machine Learning | Data Mining | Natural Language Processing | Network Science

**Northeastern University – Khoury College of Computer Sciences** | Boston, MA **2024**

*Bachelor of Science in Data Science & Business Administration – Concentration in Social Innovation & Entrepreneurship*

PlusOne Accelerated Masters' Program | GPA: 3.5/4.0

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## TECHNICAL SKILLS

- **Languages:** Python, R, SQL, GraphQL, HTML, CSS, JavaScript, C++
- **Libraries:** TensorFlow, PyTorch, Keras, Vader, TextBlob, Matplotlib, Seaborn, Pandas, NumPy
- **Software:** PyCharm, Jupyter, Tableau, GitHub, RStudio, SQL Server, MongoDB, neo4j, Excel, PowerPoint

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## WORK EXPERIENCE

**Northeastern University - Khoury College of Computer Sciences** **January 2024 – Present**

*Teaching Assistant – DS 3500: Advanced Programming with Data*

Boston, MA

*Teaching Assistant – DS 2500: Intermediate Programming with Data*

**Spring 2022**

- Host weekly office hour sessions to assist students with coursework such as dashboarding and modelling
- Grade 30+ students' homework and projects including machine learning and objected oriented programming

**Morgan Stanley / Parametric**

**July 2023 – December 2023**

*Quantitative Research Co-Op*

New York, NY

- Co-developed email professionalization program utilizing LLMs to provide scalability to client service team
- Automated 3-hour process with Python script to approve and classify tax-loss trades for Fixed Income accounts
- Built automated interactive dashboards to monitor portfolio management performance and credit analyst notes
- Interviewed and evaluated 20 candidates for subsequent co-op position, emphasizing balance in skillset

**Wellington Management Company**

**July 2022 – April 2023**

*Investment Platform Technology Co-Op*

Boston, MA

- Supported Multi-Asset portfolio management team with investment performance dashboards in Tableau
- Integrated normalized database schema to maximize dashboard performance for scalability and expansion
- Built ETL pipelines in Tableau Prep software to integrate Python scripts for data querying

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## PROJECTS

- **LLM-Based Email Professionalism Program – Pair Programming** **Fall 2023**
  - Written in Python to evaluate professionalism in client service correspondence to assess performance
  - Additional capability to add professionalism to emails using local LLM and custom prompt scripts
  - AI-Generated mail evaluated through expert systems algorithm based on metrics of professionalism
- **Supervised Machine Learning Research Projects – Individual** **Spring 2023**
  - Derived and compared traditional and stochastic gradient descent methods by MSE & Huber Loss
  - Evaluated Neural Networks by architecture and accuracy using Keras and ggplot in R programming
- **Multi-Asset Portfolio Performance Dashboard in Tableau – Individual** **Fall 2022**
  - Built to monitor portfolio performance by metrics including asset class, region, and strategy
  - Custom SQL script built as data source and connected to automated daily refresh schedule for accuracy
- **KNN-Based Resident Satisfaction Model – Individual** **Spring 2021**
  - Built from scratch in Python and evaluated by Precision/Recall & F1 Score for various values of K

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## INTERESTS & ACTIVITIES

Exploring the Outdoors; Travel; Reading; Guitar; Urban Design; Philosophy; Neuroscience; Music Industry