

JOHN MUENNING

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EDUCATION

Boston University, Boston, MA

Bachelor of Arts, Major: Mathematics and Computer Science, Minor: German

May 2025

GPA: 3.70

Relevant Coursework: Analysis of Algorithms, Theory of Computation, Computer Systems, Distributed Systems, Introduction to Database Management Systems, Applied Machine Learning, Stochastic Methods for Data Science Algorithms, Time Series and Forecasting, Optimization Methods for Operations Research, Stochastic Methods for Operations Research, Applied Abstract Algebra

Awards: Dean's List (Fall 2024, Spring 2024, Fall 2023, Spring 2023, Fall 2022, Spring 2022)

Extracurriculars: President of BU's Sketch Comedy Club (Jan 2024 – Present)

WORK EXPERIENCE

Framingham Heart Study Brain Aging Program – Framingham, MA

May 2024 – Aug 2024

Research Developer

- Developed and deployed an automated scheduling system using Python (pandas, tkinter) that integrates with Monday.com's GraphQL API, streamlining weekly schedule generation for the research team
- Created Python scripts to automate extraction of variable information from coding manual PDFs into structured data dictionaries (github.com/FHS-BAP/coding-manual-pdf-to-xlsx)
- Refactored and modularized internal fhs_utility Python library (300+ files) to improve code organization and enhance developer experience
- Tested and documented deployment configurations for multiple Docker containers, creating comprehensive usage guides for the FHS-BAP Voice Feature Extraction Toolkit (github.com/FHS-BAP/Voice-Feature-Extraction-Toolkit)
- Automated daily quality control processes using pandas and matplotlib, developing a monitoring system to track researcher productivity metrics including exam completions and PTO scheduling

Boston University Computer Science Department – Boston, MA

Sep 2023 – Present

Teaching Assistant, Java Programming and Data Structures

- Design and lead 3 weekly 50-minute labs teaching fundamental Java programming concepts and data structures to undergraduate students
- Provide individualized programming support and debugging guidance to 20+ students weekly during four office hours sessions
- Grade and provide detailed feedback on weekly programming assignments and exams for ~300 students
- Coordinate with course staff to proctor exams and ensure secure handling of examination materials
- Serve as a liaison between students and professors, resolving technical and academic concerns to maintain course effectiveness

iD Tech Camps – Cambridge, MA

Jun 2023 – Aug 2023

Instructor

- Prepared and taught curriculums on coding and game design/development for week-long classes of up to 10 students on campus of MIT
- Demonstrated usage of the Unreal Engine, Forge API for Minecraft modding, and Lua scripting for Roblox game development
- Supervised >100 students each week and maintained a clean, safe, and fun environment

TECHNICAL SKILLS

Languages: Python (Flask, NumPy, pandas, matplotlib, PyTorch), Java (JavaFX), Bash, JavaScript, HTML, CSS, C, SQL, Lua

Tools & Technologies: Git/GitHub, Docker, MongoDB, Jupyter Notebook, LaTeX, Excel, Unreal Engine

Certifications: BUMC HIPAA and Research Data Security, BUMC Human Subjects Research

PROJECTS

NFLog_reg (github.com/jmue2/NFLog_reg)

End-to-end logistic regression model for predicting the outcome of NFL games built using pandas and sklearn

Personal Website (jmue.pythonanywhere.com)

Platform to share my projects and professional journey built with Flask, HTML, CSS, and JavaScript

OTHER SKILLS AND INTERESTS

Languages: English (Native), German (Professional Working Proficiency)

Interests: Chess, Improvisational and Sketch Comedy, Horror Movies, Sports Statistics