Jake Giguere

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EDUCATION

Wentworth Institute of Technology

Boston, MA

Bachelor of Science in Computer Science, Minor in Applied Mathematics

Boston University

Boston, MA

M.S. in Computer Science concentration in Data Analytics (Expected: 2024)

GPA: 3.33

- Honors: Paragon Award for Outstanding Senior/Fifth Year Leadership nominee, Deans list 2021-22, 22-23
- <u>Relevant courses</u>: Algorithms & Data Structures, Machine Learning, Parallel Programming, Quantum Computing, Linear Algebra, Public-key Cryptography, Blockchain Technologies, Compilers, Database Security

SKILLS

Programming Languages: Java, Python, C, C++, R, Solidity, JavaScript

Frameworks: React, Django, Hardhat

Machine Learning: Scikit-learn, PyTorch, NumPy

Databases: PostgresDB, MySQL

Cryptography: ETH EVM, Smart Contracts, Hardhat, PK-Cryptography **Cloud Computing:** Deploying CI/CD Pipelines, Heroku, AWS S3

Distributed Computing: OpenMP, MPI, MPI4py

Languages: English (Native), Spanish (Conversational)

WORK & PROJECT EXPERIENCE

Wentworth Institute of Technology

Boston, MA

Machine Learning Intern

September 2022 – December 2022

- Implemented custom machine learning models for analyzing Major League Baseball data, resulting in a 13% improvement in accuracy over existing models
- Optimized Steepest Descent algorithm for predicting team performance to achieve a prediction accuracy of 86%
- Distributed workload using MPI in C to reduce computation time by 40%
- Employed TAU Performance System to create a visual representation of system performance and identify areas for further optimization
- Results of the project have been submitted the National Math Festival for a workshop and presentation

What's The Word App

Boston, MA

Founder

May 2021 – *January* 2022

- Led the development of a mobile app using Django, and React Native, resulting in a fully functional app that was deployed on TestFlight for beta testing
- Integrated various third-party APIs, including Google Maps and Stripe, to add key features to the app
- Conducted comprehensive testing using MochaJS to ensure app functionality across various devices and operating systems, using TestFlight to beta test and implement improvements from user feedback
- Designed and deployed a CI/CD pipeline to automate the build and deployment process, utilizing various tools including Heroku and GitHub

MENTOR EXPERIENCE

Wentworth Institute of Technology | Success Studio

Boston, MA

Algorithms, Machine Learning, Parallel Programming Tutor

January 2023 – Present

- Explained complex concepts by breaking down algorithms and data structures into simpler concepts that the student could understand
- Maintained accurate records of student progress and communicated weekly to ensure their involvement in the learning process
- Facilitated group discussions and encouraged critical thinking to help students understand how algorithms work and how to approach algorithmic problems