Ayman Noreldaim

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EDUCATION

Massachusetts Institute of Technology

Cambridge, Massachusetts

B.S in Computer Sci & Artificial Intelligence and Minor in Mathematics

August 2023 - May 2027

• **GPA:** 4.9/5.0

• Related Coursework: Data Structures, Algorithms, Microeconomics, Machine Learning, Inference, Real Analysis, Computer Architecture

SKILLS

Programming: Python, JavaScript, CSS, HTML, Java, NumPy, Matplotlib, C++, Risc-V, TypeScript

Tools: Git, SSH, Firebase, Visual Studio, React, Tailwind.css, Angular, MongoDB, Mongoose, PyTorch

Languages: English, Spanish, Arabic (Limited Working Proficiency)

Courses and Certificates: Scholars of Finance Leadership Development Program, PKG Social Impact Certificate

EXPERIENCE

Google Step Software Engineering Internship

June 2025 -Sep 2025

- Hope to develop a machine learning model to predict flaky tests in the Spanner DB codebase, improving the reliability of the Continuous Integration (CI) system.
- Will Investigate the feasibility of Al-driven flake prediction as an alternative to traditional heuristic-based methods
- Will analyze historical code change and test outcome data to identify code patterns leading to increased test flakiness.
- Research project will likely use tools like Python, Golang, TensorFlow, Pandas, and BigQuery.

Decentralized AI Research at MIT's Media Lab

Sep 2024 - Feb 2025

- Trained machine learning models in a decentralized manner with PyTorch. Designed and conducted systematic
 experiments to evaluate performance factors such as communication overhead, model convergence rates, and
 potential privacy leakage.
- Analyzed results to identify optimal configurations and balance between accuracy, speed, and data protection.
- Developed web interface using React allowing users to train models and share model data securely within browser.

Birth By Us, Software Engineering Intern

June 2024 - August 2024

- MIT PKG Social impact internship with the purpose of developing a web app to help black mothers through the
 pregnancy and postpartum process using Angular, MongoDB, and Typescript.
- Helped build backend by using Mongoose APIs to pull and manipulate sensitive data to the client side.
- Implemented external front-end libraries like pdfmake and chart.js to display informational features to users.
- Facilitated collaboration and communication among interns by organizing and leading regular meetings.

Future Circular Collider Analysis, Undergraduate Researcher at MIT

Dec 2023 – May 2024

- Used Collider Monte Carlo Simulation samples to reconstruct the mass of the W Boson. One method included
 measuring the effective cross sections of quarks the W boson decays into by finding which energy levels return
 maximal values. Presented at the Annual FCC Conference at MIT (April 2024).
- Research included working with tools like Jupyter Notebook, SSH, Python, and CERN virtual environment.

PROJECTS

Personal Website - https://aymann.vercel.app

Iowa City, Iowa

Solo Project

Jan 2022 – Present

Created an open-source portfolio website using languages like HTML, CSS, and TypeScript, with front end
frameworks consisting of React, Next.js, and tailwind.css and backend frameworks utilizing Node.js and Firebase.
Utilized Vercel as a host.

ACTIVITIES AND LEADERSHIP

National Society of Black Engineers (NSBE), Muslim Student Association (MSA), Scholars of Finance (SOF), Cross Country & Track and Field (XC & TF), Dorm Floor Representative