

Esam Abdelaziz

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EDUCATION

Harvard University

Computer Science & Economics with S.B. Concurrent Masters in Computer Science

Cambridge, Massachusetts

Anticipated Graduation: May 2028

Relevant Coursework:

Data Structures and Algorithms, Intermediate Data Structures and Algorithms, Introduction to Probability, Introduction to Computer Science; Principles of Microeconomics; Linear Algebra, Discrete Mathematics, Multivariable Calculus

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Java, JavaScript/TypeScript, Kotlin, React, Node.js, HTML/CSS, Flask, PyTorch

Systems & Tools: AWS, RESTful APIs, Git, Android, Linux/Ubuntu, Windows, Cisco, Microsoft Office

EXPERIENCE

AMAZON

Software Development Engineer Intern

Irvine, CA

May 2025 - August 2025

- Designed and implemented a full lifecycle feature management framework using Kotlin/Java and AWS, enabling engineers to remotely control, test, and roll out new app functionalities to 100K+ connected vehicles with zero downtime.
- Built and integrated an in-app feedback API with automated metadata capture, processing 10K+ feedback events/week and improving defect triage speed by 35% through structured data pipelines.
- Developed a release notes and known-issues microservice to synchronize defect data across app clients, leveraging RESTful APIs and DynamoDB for scalability, reducing duplicate customer support tickets by 20%.
- Engineered a metrics collection and monitoring system for limited-availability OEM releases, enabling real-time performance dashboards and improving release decision validity by 30%.

HARVARD COMPUTER SOCIETY: TECH FOR SOCIAL GOOD

Lead Software Engineer

Cambridge, MA

January 2025 - Present

- Built an AI analytics platform guiding \$400M in community investments across a 24-state healthcare network, enabling more data-driven funding decisions.
- Developed scalable Next.js/React + Supabase tools for dashboards, batch uploads, validation workflows, and multi-year trend analysis, replacing fragmented manual processes.
- Engineered data infrastructure supporting 2,300+ care sites and 200+ communities, improving reporting, trend visibility, and resource prioritization at scale.

HARVARD SOCIETY OF BLACK SCIENTIST AND ENGINEERS (HSBSE)

President

Cambridge, MA

September 2024 - Present

- Spearheaded the planning and execution of 15+ academic and professional events, increasing member engagement by 30% and fostering a supportive STEM community for Black students.
- Coordinated Harvard's delegation to the NSBE National Conference, facilitating professional development and networking opportunities for 20+ members and strengthening the chapter's national presence.
- Launched a mentorship program connecting 30+ underclassmen with industry professionals, improving retention and satisfaction.

PROJECTS

MEDICAID DISASTER ESTIMATOR

Software Engineer

Cambridge, MA

January 2025 - September 2025

- Engineered a full-stack disaster forecasting platform reducing forecast generation time by 70%.
- Built secure ETL pipelines and real-time dashboards, cutting processing latency by 40% across 100K+ records.

GRAPHIT

Founder

Cambridge, MA

December 2024 - Present

- Optimized backend for performance, reducing latency by 40% and maintaining 99.9% uptime.
- Collected and analyzed feedback from 100+ user sessions, leading to updates that increased weekly active users by 65%.

ACTIVITIES & INTERESTS

Activities at Harvard: Leadership Enterprise for a Diverse America (LEDA) Cohort 19 Scholar, ColorStack, Sponsors for Educational Opportunities Scholar, Microsoft Emerging Leaders Fellowship, Headstarter AI Software Engineering Fellow, AI4ALL

Interests: Software Engineering, Machine Learning, Data Science, Product Management, Basketball