

Ziyad. HASSAN

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EDUCATION

Massachusetts Institute of Technology

Bachelor of Science in Computer Science and Engineering

Cambridge, MA

Sep 2021 – May 2025

- GPA 4.7/5.0
- Relevant Courses: Computer systems, Software Construction, Computer Architecture, Operating Systems, TinyML, Digital Systems

PROFESSIONAL EXPERIENCE

MIT Computer Science and Artificial Intelligence Lab - CSAIL

Student Researcher

Boston, MA

Sept 2024- Feb 2025

- Exploring LLMs for Hardware generation

Google – Cloud Workspace

Software Development Engineering Intern – Integration Testing Platform

Sunnyvale, CA

May 2024- August 2024

- Setup instrumentation for a Python integration testing program to collect information on >1000 services
- Wrote SQL scripts to conduct analysis on customer services which gave us insight that reduced program noise by >50%
- Wrote and iterated on Gemini LLM prompts to further reduce noise in our program by an extra 67%
- Conducted a study on the effectiveness of AI on non-general file templates and how to supplement it with non-AI methods to further reduce noise

Amazon Web Services- Hardware Engineering Services

Software Development Engineering Intern – Firmware Builder Services

Cupertino, CA

May 2023- August 2023

- Designed and implemented a reusable code infrastructure and pipeline for 40+ component programs to automate firmware registration that will save up to 2 months effort per year
- Designed a testing and validation scheme that reduces errors in registration to less than 1%
- Worked alongside 3 different teams to best design and implement project for our lead user and other teams.
- Gained experience with CI/CD principles, writing scalable and maintainable code, and designing flexible high-performance systems.

Uber

UberSTAR Software Engineering Intern – Experimentation Data and Analysis Tools Team

San Francisco, CA (Remote)

May 2022 – Aug 2022

- Developed a 2-part data pipeline that aggregates 300+ billion rows of experimentation data daily
- Designed and configured a dashboard to provide insights of our experiments from the data pipeline to users
- Researched and implemented SQL scripts that optimized runtime for the data pipeline by 130%
- Performed 75+ multiple tests with different configurations to determine optimal data volume in reduced time

SKILLS & INTERESTS

- Technical skills: Python, Java, TS/JS, ML, Hardware, OS, Algorithms
- Interests: Machine Learning, LLMs, AI, Programming Puzzles, Photography, Reading
- Languages: Arabic (Native), English (Native and Fully proficient), Spanish (Intermediate/Seal of Biliteracy 2021)

SELECTED PROJECTS

LiTerm FPGA

- Independent File Editor, Assembler, and Processor on the FPGA.
- Wrote SystemVerilog code for group project that took input from a keyboard into a text editor to write risc-v code that was assembled and executed, while visualizing the results of the execution.

LISP Programming Language Interpreter

- Python Interpreter for LISP programming language that supports all basic functions, data structures, and operators.
- Implemented lexical environments for programs and fully functional REPL environment from terminal.

EXTRACURRICULAR ACTIVITIES

ColorStack

- Actively contribute and engage in a community focused on community building, the academic support and the career development of over 2000 Black and Latinx computer science undergraduate students

National Society of Black Engineers

- Engaged in seminars and workshops as a part of club that aims to increase the number of black engineers who excel academically, succeed professionally and positively impact the community

MIT Cross Country and Track & Field

- Committed 16+ hours as part of the varsity track and cross-country team. Active member of team leadership program