

NATAN M. KASSA

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EDUCATION

University of Southern California Los Angeles, CA
Bachelors of Science in Computer Science and Computer Engineering August 2020-June 2024

- Relevant Course Work: Data Structures and Object Oriented Design, Distributed Systems, Theory of Computing, Machine Learning, Computer Architecture, Robotics, Introduction to Artificial Intelligence, Cybersecurity, and Probability Theory
- GPA: 3.51/4.0, Cum Laude Honors, Viterbi Dean's List 6 semesters

EXPERIENCE

HeadStarter Fellowship Seattle, WA
Fellow/Intern June 2024-August 2024

- Completed a comprehensive 2-month software engineering fellowship with a focus on AI development, resulting in the creation of 5 innovative AI projects and active participation in 5 hackathons
- Streamlined processes and optimized workflows, helping a startup clear backlog tasks and achieve a 15% reduction in project timelines

AskAwayOlympics (Project) Bellevue, WA
Lead SWE July 2024-August 2024

- Led the integration of OpenAI's GPT 4.0 model via server-side API, delivering dynamic, context-aware responses significantly improving the accuracy and relevance of chatbot replies
- Utilized Next.js for server-side rendering and efficient routing, reducing load times by 25%, boosting application performance
- Engineered a multilingual chat interface with React.js, enabling real-time communication across 3 languages (English, Spanish, French), and increasing user engagement on a global scale

DailyBrief (Project) Bellevue, WA
SWE June 2024-July 2024

- Created and deployed a news aggregation and summarization application with Flask and FastAPI, streamlining content while filtering out irrelevant information significantly reducing time spent on information retrieval
- Leveraged Supabase for database management and integrated OpenAI, achieving 90% accuracy in content summarization
- Implemented web scraping/processing pipelines, optimizing the retrieval of articles with Python libraries (Requests, LangChain)

Signal Cycle Solutions Los Angeles, CA
Lead SWE January 2024-May 2024

- Developed and extensively tested bicycle safety system with automated LED turn signals, a sonar-based lane-changing mechanism, and a real-time speedometer using an ATMEGA328P microcontroller, completing over 50 hours of testing
- Designed and implemented both hardware and software components to enhance user experience and interaction, while addressing needs of thousands of college students and other cyclists in high-traffic areas

Viterbi School of Engineering Los Angeles, CA
Teaching Assistant January 2023-May 2023

- Served as an Undergraduate Teaching Assistant for Introduction to Digital Circuits course specialized in designing, simulating, and building a substantial digital system using Verilog HDL (Hardware Description Language)
- Conducted labs/office hours to facilitate student learning, offering guidance on issues with clock domain crossing, 4-way and 2-way handshakes, single and two clock First-In First-Out buffers, and practical applications of these concepts

LEADERSHIP AND INVOLVEMENT

East African Student Association Los Angeles, CA
Member/Events Planner August 2021-June 2024

- Lead and partook in culture shows to help members of East African diaspora, as well as those interested in culture, get to know one another in socially, educationally, and culturally enriching forums

SKILLS

Tools and Technologies: Git, SSH, pip, npm, Vercel, OpenAI

Programming Languages: C++, Python, JavaScript/ES6, C, HTML, CSS, TypeScript, Dart, Verilog

Frameworks/Libraries/Databases/Boards: React.js, Node.js, Next.js, Firebase, Tailwind CSS, Material-UI, Matplotlib, Fetch API, OpenAI SDK, ReadableStream, TextEncoder, Flask, FastAPI, Arduino uno, Raspberry Pi, Nexys 4, FPGA Boards