

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, Probability Theory, and Calculus
- GPA: 3.5/4.0, Dean's List

EXPERIENCE

Signal Cycle Solutions

Los Angeles, CA

Lead

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

Meta Above & Beyond CS Program

Los Angeles, CA

Intern

August 2022-November 2022

- Engaged in hands-on workshops and collaborative projects with Meta software engineers, focusing on mastering key backend development skills such as C++, Python, and fundamental concepts of data structures
- Cooperated in code reviews, debugging sessions, and best practices discussions to enhance technical proficiency and professional development

Smart LED Lights

Los Angeles, CA

Lead

August 2021-December 2021

- Engineered a voice-controlled LED system, in a team of 2 technicians, leveraging Google API and Raspberry Pi, capturing audio input on a laptop, converting it to text, and executing commands on the Raspberry Pi
- Improved voice recognition accuracy by 50% for better handling of accents and varied speech patterns

LEADERSHIP AND INVOLVEMENT

East African Student Association

Los Angeles, CA

Member/Events Planner

August 2020-May 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
- Mentored and empowered leaders within community through service initiatives for three years, directly impacting local communities and creating a supportive infrastructure fostering camaraderie among students of African/Black culture

ACT 2 Fellowship

Los Angeles, CA

Student Ambassador

September 2020-May 2024

- Coordinated a series of social and networking events, including mixers, workshops, and guest speaker sessions, crucially boosting club membership by 20%

SKILLS

- Programming: C++, Dart, Python, Verilog
- Technical/Programmatic: Data Structures and Algorithms, Machine Learning, Arduino uno, Raspberry Pi, FPGA Boards

HONORS

- Honors: Viterbi Dean’s List (Fall 2021, 2022, and 2023; Spring 2022, 2023, and 2024) and Cum Laude Honors