Aristotle Henderson

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Education

University of California, Los Angeles (UCLA) ***Expected Jun 2023***

- B.S. Computer Science and Engineering
- 4.0 GPA – Dean's Honor List, member of Upsilon Pi Epsilon and Tau Beta Pi
- Coursework: Data Structures, Algorithms, Architecture, Calculus, Discrete Math, Linear Algebra, Physics, Operating Systems

Technical Skills

- Proficient using Python, C, C++, JavaScript, Bash; experience with C#, Java, Swift, R, HTML, CSS, x86 assembly
- Experience using AWS, Firebase, Node.js; proficient with Xcode, Android Studio, React Native, Git, Adobe CC, databases
- Expertise in research, technical writing; skilled with distributed systems, object-oriented design, full-stack software development

Work Experience

Marvell Technology – Software Engineer Intern ***Jun 2021 to present – Burlington, VT***

- Design software that optimizes and analyzes critical components for ASIC AI accelerators and 5G networking products
- Engineer foundational improvements in chip power, performance, and yield by using Python, Pandas, Jupyter Notebook, and R Shiny to transform tens of thousands of semiconductor data collections and automate pivotal silicon design decisions
- Expand sophisticated memory selection software with novel statistics-based features and optimizations using C#, .NET
- Create presentations, documentation, and diagrams for internal engineering use and demonstration to executive directors

UCLA Scalable Analytics Institute – Undergraduate Researcher ***Jan 2020 to present – Los Angeles, CA***

- Pioneer work for a research project that automates and improves text identification with natural language processing (NLP)
- Utilize technologies like Python, PyTorch, and Docker to build novel tag generation machine learning (ML) algorithms
- Study NLP academic papers and testing existing supervised language models against large datasets to build upon existing neural network development; construct ML data processing for ingestion of millions of textual data points with data mining

Naval Postgraduate School – Research Intern ***Jun 2018 to Jul 2018 – Monterey, CA***

- Guided team's Android app creation, enabling interaction among defense experts; mentored by Dr. Edward B. Rockower
- Employed Firebase Authentication/Database/Storage, Android Studio, Java libraries to host Global ECCO's strategy games and other media; allows gameplay between multiple devices with the use of many Android activities and fragments
- Spearheaded the development of an iOS application in Swift with a matching feature set and backend integration
- Authored technical reports and a research poster detailing the project's findings and achievements; progress enabled by my work included to our OSD leadership sponsor's 2018 Report to Congress

Project Experience

UCLA Upsilon Pi Epsilon – Induction Chair ***Jun 2021 to present – Los Angeles, CA***

- Manage events and communications for the next generation of UPE scholars in service of the UCLA CS community
- Oversee collaborations with other committee chairs to introduce new networking programs for active members

UCLA DevX – Software Developer ***Oct 2020 to present – Los Angeles, CA***

- Develop backend software for the foundation of BruinBot, an agile robotic delivery project designed to help UCLA
- Architect database models and server routing for location and path orchestration by utilizing Node.js, Express, MongoDB, AWS
- Build a Python bot simulator for deployment with Kubernetes, Docker; designed for use with production hardware
- Implement delivery mapping and bot GPS features for user-facing mobile app using React Native, TypeScript

UCLA Bruin Racing Baja SAE – Project Engineer ***Sep 2019 to present – Los Angeles, CA***

- Create electronics to assist the data collection and driving of an advanced all-terrain vehicle build to compete in Baja SAE off-road competitions; work with low-level control and interaction of vehicle's subsystems
- Lead development of advanced data acquisition electronics for a custom dynamometer to improve vehicle performance
- Construct a Raspberry Pi-based live data collection system that enables further analysis of vehicle behavior

Vibecheck: A Sentiment Analysis Search Engine ***Apr 2021 to Jun 2021 – Los Angeles, CA***

- Collaborated with a group of student developers on a full-stack web application with React, JavaScript, and Python; uses a machine learning model to provide sentiment information about any topic from a collection of social media websites
- Developed the backend MySQL database for search trend storage, all frontend React webpages for user interaction, and data visualizations to display search results; contributed to sentiment algorithm's design and social media API integration