

# Aristotle Henderson

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## Education

### University of California, Los Angeles (UCLA)

*Expected Jun 2023*

- B.S. Computer Science
- 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 Sep 2021 – Burlington, VT*

- Designed software that optimizes and analyzes critical components for ASIC AI accelerators and 5G networking products
- Engineered 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
- Expanded sophisticated memory selection software with novel statistics-based features and optimizations using C#, .NET
- Created presentations, documentation, and diagrams for internal engineering use and demonstration to executive directors

### 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 U.S. Congress

## Project Experience

### Upsilon Pi Epsilon at UCLA – 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 innovative delivery mapping and bot GPS features for user-facing mobile app using React Native, TypeScript

### UCLA Scalable Analytics Institute – Undergraduate Researcher

*Jan 2020 to present – Los Angeles, CA*

- Pioneer work on 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 test 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

### Bruin Racing Baja – Project Engineer

*Sep 2019 to present – Los Angeles, CA*

- Create electronics to assist the data collection and driving of an advanced all-terrain vehicle built 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 2020 to Jun 2020 – 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