

Andrew Hartwell

Los Angeles, CA | (661)414-6861 | arhartwe@ucsc.edu | www.linkedin.com/in/andrew-hartwell
https://arhartwe.github.io www.github.com/arhartwe

EDUCATION

University of California, Santa Cruz, Santa Cruz CA

Graduated: June 2020

Computer Science B.S | GPA: 3.55

- Educational Opportunities Program Honors Student
- Dean's Honors Student Fall 2019, Winter 2019, Winter 2020, Spring 2020
- Slug Gaming Overwatch Team Captain
- **Relevant Coursework:** Software Engineering, Principles of Computer System Design, Analysis of Algorithms, Applied Machine Learning (Python), Advanced Programming (C++), Distributed Systems (Python)

EXPERIENCE

Undergraduate Student Researcher for SAP

January 2020 – June 2020

University of California, Santa Cruz, 2020

- Collaborated with Intel and SAP to expand upon accelerating key in-memory database functionality by utilizing OpenCL/C++ with a FPGA.
- Incorporated pipeline parallelism architecture to optimize delta merge process.
- Optimized implementation surpassed SAP's previous research by 66%.
- Extensively documented the project tasks and progression as acting Scrum Master.

PROJECTS

Fault-Tolerant Key-Value Store (Python/Flask)

University of California, Santa Cruz, 2020

- Launched a Python 3.7 REST API of a distributed key-value store using Flask framework.
- Instituted sharded key-value distribution that can operate on thousands of keys simultaneously.
- Improved the functionality by providing causally consistent key insertion.
- Delegated crucial key re-sharding functionality that resulted in significant performance increase.

Woo Healthcare Application (JavaScript/React Native)

University of California, Santa Cruz, 2019

- Developed a phone application that followed Agile best practices and Scrum methodology.
- Expedited appointment scheduling, medical record viewing and prescription distribution.
- Employed React Native which provided responsive user experience on Android and iOS.
- Proposed and integrated Firebase Firestore for handling of user data to provide real-time storage.

Pokémon Battle Prediction (Python/Google Colab)

University of California, Santa Cruz, 2018

- Conceived a machine learning project that predicted the winner of a Pokémon battle.
- Outperformed Kaggle competition winner by introducing a neural network.
- Achieved battle winner classification accuracy of 95.1%.

TECHNICAL SKILLS

Front End: JavaScript/TypeScript, HTML, CSS, React Native, Flask

Back End: Java, C/C++, Python, Firebase, MongoDB, PostgreSQL

Developer Tools: Git, Docker, Expo, VirtualBox, Android Studio, Visual Studio Code