# 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 program 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-insertion tasks resulting in performance increase of 20%.

**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, HTML, CSS, React Native, Flask
**Back End:** Java, C/C++, Python, Firebase, MongoDB
**Developer Tools:** Git, Docker, Expo, VirtualBox, Android Studio, Visual Studio Code