

# Andrew Hartwell

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## EDUCATION

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**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++), Computer Architecture, Data Structures (C)

## PROJECTS

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### IMDB to FPGA (C++/OpenCL)

*University of California, Santa Cruz, 2020*

- Worked with Intel and SAP to expand upon accelerating key in-memory database functionality by utilizing OpenCL with a FPGA.
- Incorporated pipeline parallelism architecture to optimize delta merge process.
- Optimized implementation surpassed SAP's previous research by 66 percent.

### Woo Healthcare Application (React Native)

*University of California, Santa Cruz, 2019*

- Software project that followed Agile best practices and Scrum methodology.
- Targets Medical Staff and Patients to expedite appointment scheduling, medical record viewing and prescription distribution.
- Utilizes React Native to provide responsive user experience on Android and iOS.
- Firebase Firestore used for handling of user data to provide real-time storage and a convenient interface.

### Pokémon Battle Prediction (Python)

*University of California, Santa Cruz, 2018*

- Machine Learning project that predicts the winner of a Pokémon battle.
- Outperformed Kaggle competition winner with implementation of neural network.
- Achieved classification accuracy of 95.1%.

### QuickTrip Android Application (Java/Android Studio)

*University of California, Santa Cruz, 2018*

- Android Studio application that employs google accounts to create a list sharing app.
- Lists updated and shared with other users in real time with use of Firebase backend.
- Facilitates efficient grocery shopping for large households.

## SKILLS

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**Programming:** (Proficient) C, Java; (Familiar) C++, Python, JavaScript

**Technologies/Environment:** Windows, Linux, Expo, VirtualBox, Git, Android Studio, Firebase, VSC