

ERIN WOO

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📍 Burlingame, CA

EDUCATION

University of California, Santa Barbara
Computing B.S., College of Creative Studies

Santa Barbara, CA
Exp. grad: **June 2021**

- Organizations: SB Hacks V Organizing Team (Sponsorship Coordinator), Alpha Sigma Kappa – Women in Technical Studies (Webmaster/Photographer), Theta Tau Professional Engineering Fraternity – Sigma Epsilon Chapter (Vice Regent)
- Scholarships/Fellowships: Grace Hopper 2018 UCSB CS Departmental Scholarship, Rewriting the Code Fellow

WORK AND EXPERIENCE

Software Engineer Intern

Microsoft – Redmond, WA
June 2020 – September 2020

- Implementing the revamped layout of notification settings within the *Teams* Android app.

Software Engineer Intern – UCSB

Enterprise Technology Services (Software Engineering Architecture & Lifecycle)
August 2019 – Present

- Developing and refining high-visibility UI features in Javascript & Aurelia.
- Optimizing search features by reducing latency between server and UI clients.

Undergraduate Computer Science

Tutor – CMPSC 24 UC Santa Barbara
September 2019 – Present

- Tutor for *Problem Solving with Computers II*. Leading lab office hours and offering one-on-one assistance in programming assignments and course material in C++.

Software Engineer Intern

WeWork HQ - San Francisco, CA
June - August 2019

- Architected RESTful APIs and middleware with Golang, Gin, and Elasticsearch for data visualization of access card usage across WeWork buildings.
- Actualized a POC device heatmapping tool in Mapbox JS that enabled product managers to visualize the utilization of WeSecure devices.

EUREKA! Scholars Research Intern

RE-Touch Lab – UCSB Media Arts & Technology
May - September 2018

- Researched and developed applications for dynamic finger-worn haptics in virtual reality systems using Unity3D/C# in Oculus Rift using Leap Motion and MaxMSP (*Tactile Echoes*).

Undergraduate Research Assistant

UCSB Gevirtz Graduate School of Education
November 2017 - March 2018

- Co-developed the back-end infrastructure of a Scratch-based virtual reality game in Unity3D/C# for HTC Vive that teaches young children how to code (*Blockbased VR*).

Girls Who Code Summer Immersion Program

Twitter – San Francisco, CA

June - August 2016

- Introduction to programming fundamentals and data structures using Python, Javascript, and C++.
- Final project culminated in a web-based Javascript platform game (“The Human Race”) that explored the effects of racial privilege in everyday life.

PROJECTS

2P Money Exchange Application with Private Blockchain: C/C++

Spring 2020

- Developed a peer-to-peer money exchange application on top of a private blockchain for fault-tolerant transactions within a decentralized system. Implemented Paxos, a consensus protocol, to ensure consistent replication across transactions and tolerance of crash failures.

KOS: C, DEC MIPS R3000 Simulator

Fall 2019

- Built an operating system for MIPS-simulated hardware that implemented interrupt/error handling, fork/exec/wait system calls, and multi-process memory management.

Bow & Arrow Haptic Simulation: C++/CHAI3D/Novint Falcon/Blender/OpenGL

Winter 2019

- Engineered a force-feedback simulation of a bow and arrow with haptic and visual stimuli on the Novint Falcon haptic system.
- Modeled the physics of the bow string tension force and the corresponding graphical display using the CHAI3D haptic library with OpenGL.

Tactile Echoes (Simon VR) - Unity3D/C#/Oculus Rift

May - September 2018

- Built the backend functionality of the VR engine that bridged the communication between hand tracking and the haptics engine in Unity3D (C#) for Oculus Rift. Implemented the handheld memory-based game, Simon, in virtual reality with haptic and auditory feedback.

TECHNICAL TOOLS

Programming Languages (from most to least experienced): C++/C, Javascript/Typescript, HTML/CSS, Java, C#, Golang, Python, Assembly (MIPS)

Tools/Skills: Emacs, UNIX shell, GDB, Valgrind, CHAI3D, IoT, Elasticsearch, Android Studio, RESTful API design, Postman, Xcode, Unity3D, Git/Github, test driven development (TDD)/unit testing, Node.js, socket programming, operating systems, distributed systems design, blockchain protocols, Firebase