# COLBY HASKELL

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GitHub: colbychaskell, Personal Website: https://colbyhaskell.com

## EDUCATION

**University of Southern California** – Los Angeles, CA **Expected Fall 2022**

*B.S. Computer Engineering and Computer Science (Embedded Systems)*

- *Honors:* Presidential Scholar; GPA: 3.712
- *Involvement:* McCarthy Honors College, USC Developer Student Club, Trojan Venture Partners

## EXPERIENCE

**BetterBrews** **2021- Present**

*App Creator*

- Created coffee tracking app that guides users through the coffee brewing process and tracks variables such as water temperature, grind size, and brew time.
- Developed using SwiftUI and UIKit, and Core Data and FileManager (JSON files) for data persistence.
- Released on the Apple App Store in October 2021.

**USC Dynamic Robotics and Control Laboratory,** – Los Angeles, CA **2020 - 2021**

*Undergraduate Research Assistant*

- Implemented a GUI for the control software written with Qt, C++, and ROS for the quadruped robots used in the lab
- Created simulation environments to test SLAM algorithm, image-detection, and obstacle avoidance for robots used in last-mile meal delivery project
- Hosted weekly team meetings via zoom and presented PowerPoints to share progress.

## TECHNICAL SKILLS

- **Programming Languages:** C++, Python, C, MATLAB, Swift, Java
- **Web Development:** HTML, CSS, JavaScript, jQuery
- **IOS Development:** SwiftUI, UIKit, CloudKit, Objective-C
- **Networking:** MQTT, Flask, REST APIs
- **Other Skills:** ROS, Verilog, CMake, Docker, Git, Photoshop, Excel

## COURSEWORK

- **EE301: Linear Systems**
- **EE250: Distributed Systems for the Internet of Things**
- **EE457: Computer Systems Organization**
- **EE364: Probability and Statistics for Electrical Engineering and Computer Science**

## RECENT PROJECTS

**CSCI 104 Visualizer**

- Web App created in JavaScript to visualize concepts taught in CSI 104: Data Structures and Object-Oriented Design.
- Currently Supports Visualization of pathfinding algorithms (Dijkstra's, A* Search, BFS, and DFS)

**Qt Chess**

- Basic GUI chess game created with Qt C++
- Supports play as black or white, dragging and dropping of pieces, and features simple CPU opponent