

## EDUCATION

**Tufts University**, Medford, MA

**B.S. in Electrical Engineering** with minor in Computer Science: Expected May 2020

**M.S. in Computer Engineering**: Expected May 2021

**Relevant Courses**: Algorithms, Data Structures, Linear Systems, Control Systems, Microprocessor Architecture

## SKILLS

**Hardware**: Basic analog circuit design, Logical circuit design, Soldering, VHDL/Verilog, Arduino IDE, LTSpice, Keil µVision IDE, EasyEDA (PCB Design)

**Software**: C++, C, ARM Assembly, Java, Objective-C, Dart, MatLab, Javascript, NodeJS, PHP, HTML, CSS

**Tools**: Git, Linux Command Line, Sublime Text, Android Studio, XCode, Heroku, MongoDB, LaTeX

**Frameworks**: Android App Development, iOS App Development, Flutter, Express

**Design**: Adobe Creative Cloud (Photoshop, Illustrator, Experience Design, Premiere Pro, AfterEffects, etc.)

## RELEVANT PROJECTS - [www.chrismarkus.me/projects](http://www.chrismarkus.me/projects)

### Junior Design Project: SwarmBot

- Designed, constructed and tested pair of “swarm bots” that simulate full-size autonomous vehicles and communicate with each other and a base station to navigate through a simulated urban environment.
- Collaborated with a team of engineers to solve a complex engineering design problem.

### “OurSound” First Prize, SONOS Design Challenge 2018

- Designed and developed mobile application and web API that creates a queue of songs based on music libraries of partygoers and mood filters set by party host.
- Integrated mobile app (Flutter) front-end and NodeJS/Express back-end with SONOS and Spotify web APIs.
- Reverse-engineered and implemented communication with Sonos speakers over local network.

### WiFi-controlled RGB Light for Filmmaking Applications

- Designed custom LED Light with onboard WiFi to allow communication of multiple lights via a mesh network.
- Developed firmware for Arduino Nano and ESP8266 WiFi chip, remote control mobile app using Flutter framework.
- Designed and constructed control circuitry including custom PCB.

### “MealSwipez”

- Designed and developed web application that allows users to discover recipes in a dating-app style swipe interface.
- Integrated NodeJS/Express back-end with MongoDB database, Facebook and other external APIs.

## EXPERIENCE

**Sonos Inc**, Boston, MA, *Software Engineering Intern* (May 2019- August 2019)

- Developed production-quality software that has shipped to millions of Sonos users for Sonos’ iOS, Android and Desktop applications as well as Sonos speakers.
- Coordinated with product management and UX design to implement a novel feature that will ship in the Sonos app.

**Redcap Digital Media LLC**, Falls Church, VA, *Founder* (July 2018- Present)

- Established video production company that has grown to serve high-profile corporate clients.
- Collaborate with clients to develop and execute video concepts that balance their vision with budget constraints.
- Develop and manage recognizable brand identity across all platforms.

**Tufts University Social Collective**, *Marketing Team: Special Projects Coordinator* (September 2017 – Present)

- Interface directly with clients and campus partners including tour managers, artists, and the University President.
- Design graphics, videos, posters, etc. to promote campus-wide events.

**Tufts University**, *Teaching Assistant: Introduction to Computing in Engineering* (January 2018 – May 2018)

- Guided and instructed students during laboratory component of course and office hours.
- Graded homework and collaborated with professor to revise proposed assignments.

**Boy Scouts of America Troop 895**, Falls Church, VA, *Eagle Scout*

- Eagle Project: Office renovation for Falls Church Presbyterian Church Food Pantry