

# Harris McCullers

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## EDUCATION

### PITZER COLLEGE

#### COMPUTER SCIENCE

Graduating May 2021 | Claremont, CA  
Majoring in Computer Science at Harvey Mudd College while being a student at my home campus of Pitzer College has given me both a comprehensive computer science education and an exposure to the liberal arts. I am the president of an on campus a capella group, and I enjoy music, fitness, and a variety of independent engineering projects.

## SKILLS

### VERY SKILLED IN:

Python · TypeScript · C/C++ · Git · Docker/Containerization · JavaScript

### ALSO COMFORTABLE WITH:

React · Node.js · Java · MySQL · Linux

### FUNDAMENTALS:

Issue Tracking (Jira), Complexity analysis, Recursive techniques, API Design and Usage, Data Structures, Object-Oriented Programming, Program design.

## COURSEWORK

### ALGORITHMS, HARVEY MUDD

#### CS140 - Spring 2017

Algorithm design, analysis, and correctness. Applications including sorting and searching, graph theoretic problems, and others.

### SOFTWARE DEVELOPMENT, HARVEY MUDD

#### CS121

#### - FALL 2018

Design and implementation of software. Project management, agile development, and QA testing.

### COMPUTER SYSTEMS, HARVEY MUDD

#### CS105 - Spring 2019

Data representations, processor architecture, program optimizations, virtual memory, system-level I/O, and concurrent programming

### DATA STRUCTURES AND PROGRAM DEVELOPMENT, HARVEY MUDD

#### CS070 - FALL 2018

Abstract data types, efficient data structures for these data types, runtime analysis of data structures

## EXPERIENCE

### DESMOS | HMC SENIOR CLINIC

September 2020 - Present | Remote

\*The Harvey Mudd Clinic program allows seniors to spend a year working for a company with a small team.

- As team project manager, I work to coordinate between members of the Harvey Mudd and Desmos teams and to embed task management and agile practices into our workflow.
- Using primarily Typescript, I am working on helping Desmos to create developer tools, IDE enhancements, and new language functionality for their teacher-facing scripting language 'Computation Layer'.

### KITTY HAWK | SOFTWARE ENGINEER INTERN

May 2020 - May 2020 | Remote

\*This internship was cut short after only a week due to the unexpected cancellation of my team's project.

- Remotely interviewed and joined the UPS team of the flyer project to develop software which monitored the system health of the vehicle in flight.
- Used C++, Python and the ROS stack to develop software which interfaced between all of the different embedded devices within the flyer and a central linux flight computer.

### MAGICLINKS | PROJECT AND PRODUCT MANAGEMENT INTERN

May 2019 - September 2019 | Venice, CA

- Responsible for creating new projects and features for the Magiclinks website and mobile app, as well as seeing those features through to production.
- Mediated between the business and product teams to contribute to many separate projects of varying sizes, as well as to take ownership of independent projects.
- Coordinated with a team of 5 developers on daily calls to prioritize and work through a wide array of tasks
- Developed useful and relevant projects for the company in a timely and efficient manner

## HIGHLIGHTED PROJECTS

### ITERATION | DESMOS

Present | Desmos HMC Clinic

- Implementing iteration in Desmos' internal scripting language, Computation Layer (CL).
- Modifying type system in custom mini language (Pratt parser) to allow for pre-runtime error checking of loops.
- Developing system which prevents a user from ever writing a loop that will fail on runtime.

### PREDICTION WIDGET | MAGICLINKS

Summer 2019 | MagicLinks

- Deployed to an audience of 40,000+ active users and even more potential users
- Acted as both PDM and PJM to ideate new project idea with CEO and business team leads, then executed on those ideas with a team of 5 developers
- Developed prediction algorithm using historical consumer data from the platform to estimate product value for a given user.