

Matthew Krager

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 themkrage

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education

Harvey Mudd College '21
B.S. Computer Science
CS Principles, Computational
Creativity, Discrete Math,
Data Structures, Logic

skills

Frontend: Swift, Vue.js, ObjC,
HTML, CSS, JS, Bootstrap
Backend: Ruby on Rails, SQL,
AWS, Azure, Relational DBs
Data: Octave, Python, R,
Other: Java, OOP, Git, Design

activities

5C Software Club
President and Founder
2018 - Present

- prepared meetings full of presentations and networking
- hosted interview and personal project workshops

Robotics FRC Team 3309
President and Programmer
2013 - 2017

- programmed, tuned, and profiled an automatic turreted shooter (2nd at World Champs)
- oversaw 50+ people in team operations with new leadership structure

Tech and Innovation Club
President and Founder
2015 - 2017

- exposed students to STEM through opportunities such as presentations and a tech fair attended by 17 companies
- received \$1000 grant from Disney

experience

Los Alamos National Lab September 2018 - Present
Clinic Team Member

- Researching reconstruction of sparse data for a graph-based model
- Using Python to detect anomalies within the reconstructed graph networks

Simpol January 2018 - May 2018
iOS Intern

- Fixed bugs and solidified the user experience by adding new animations
- Wrote code in Swift and constrained the app using Apple's Auto Layout

Koder May 2017 - January 2018
Software Intern

- Designed database schema, wrote comprehensive SQL queries, and used an ORM to convert query results into model instances
- Developed several internal iOS apps in Swift including a Tinder-like navigation used to rate the company's potential applicants
- Scraped data from over 10000 online resumes using .NET and stored the results in a SQL Relational Database
- Wrote and deployed a Web API using C# and Microsoft Azure
- Created a search algorithm which ranks results based on relevance score

Google CodeU Summer 2017
• Built a chat app which was often code reviewed by a Google Engineer

projects

Orange County Application: Collaborated with FIRST Robotics to build an app and dashboard that modernizes the logistics of a robotics competition

- The app was live for the event attended by over 2000

Cashpost: Began a platform which allows businesses to reward customers for sharing their experiences on social media

- Consists of a business dashboard written in Vue.js, a Rails backend, and an iOS app for customers written in Swift

React Fast: Developed a mobile reaction game using Apple's Sprite Kit

- Has over 3000 downloads on the App Store

Quotem: Produced a social media app that revolves around quoting; designed database schema and wrote backend in Rails; deployed on AWS

Lyric Generator: Bounded an nth order Markov Chain to match rhyme and song structure to generate lyrics; deployed website with Flask and Heroku

Friend Alarm: Produced an app where users can set the noise of their friend's morning alarm; experimented with test-driven development

Arcade Radar: Used iOS MapKit to create an app that presents scraped arcade locations and allows users to submit arcade locations

VEX Scout: Built an app which analyzes match data from robotics teams