

Sivam Agarwalla

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EDUCATION

SAN JOSE

B.S. IN COMPUTER SCIENCE
MINOR IN MATHEMATICS
GRADUATION: MAY 2022
Dean's Scholar Recipient
GPA: 3.76 / 4.00

COURSEWORK

COMPUTER SCIENCE

Data Structures + Algorithms
Object-Oriented Design
Machine Learning
Operating Systems
Software Engineering
Computer Game Design +
Programming
Information Security
Programming Paradigms
Formal Languages +
Computability

MATHEMATICS

Linear Algebra
Discrete Math
Applied Probability + Statistics

SKILLS

LANGUAGES

Java, JavaScript (ES6), Python 3,
C++, Swift, C, HTML5, CSS3, SQL

FRAMEWORKS/TOOLS

React, Redux, Express, NodeJS
React Native, Tensorflow 2.0, Git
Firebase, MongoDB, Agile
(Scrum), Postman, AdodeXD

ORGANIZATIONS

Theta Tau; Professional
Engineering Fraternity
Machine Learning Club
SJSU Competitive Programming
Team

EXPERIENCE

DQUORA LABS INC. | SOFTWARE ENGINEER INTERN

June 2020 - August 2020 | Cupertino, CA

- Led the design and development of **SafeSteps** - a prototype **iOS application** for Covid-19 contact tracing (MapKit, Core Data, CryptoKit, etc.)
- Presented prototype to government of **Maui, Hawaii** and maintained a communication channel with clients to **implement shifting requirements**, leading to a **paid pilot program** at the end of 2020
- Researched **Service Oriented Architecture** and **AWS Lambda** functions to aid in designing the **back-end architecture**

KRAKBOT | SOFTWARE ENGINEER INTERN

July 2019 - August 2019 | Cupertino, CA

- Utilized **Vue.js** framework to restructure user onboarding functionality, **improving codebase health** due to increased performance and versatility
- Designed **wireframes** and **user-flow diagrams** with **Sketch** to create an uncluttered and **fluid front-end design**
- Gained exposure to **Agile** development practices and **Git** by contributing code in a fast-paced startup environment

FOODAR | FRONT-END + BUSINESS INTERN

July 2017 - August 2017 | Cupertino, CA

- Applied **UI/UX** principles to design a **functional** and captivating front-end
- Contacted 10 restaurant businesses daily to join the app's network, leading to **~30 partnerships** and **~500 images** to populate Foodar's database pre-deployment
- Prepared demos and concise **pitches** for **VC meetings** to raise advertisement funding

TECHNICAL PROJECTS

THINKTANKU | IOS APPLICATION

November 2020 - December 2020 | GitHub Repo

A community for discussing college-based startups built using **Swift** and **Parse**. Contains full social-networking functionality and a **Natural Language Processing** model built using **CreateML** and deployed using **CoreML** to analyze Twitter sentiment on a given topic.

DEVELOPER SHOP | ECOMMERCE WEB APPLICATION

October 2020 - December 2020 | GitHub Repo

A full-stack eCommerce website catered towards developers built using **React**, **Redux**, **Express**, **Node.js**, and **MongoDB**.

Created **RESTful API** for back-end services, **schema models** and **CRUD routes** for Users, Products, and Orders, along with custom authentication middleware.

SUBBY | CROSS-PLATFORM MOBILE APPLICATION

September 2020 | GitHub Repo

Combined **React Native** and **Firebase** to develop a full-stack mobile application at **HACKMIT** to allow college students to sublease apartments for short time periods.

LUNAR LANDER | 3-D GAME

March 2020 - May 2020 | GitHub Repo

Developed a fully functional 3-D lunar landing game from ground-up using **C++**, **OpenFrameworks**, and **Maya**.

Implemented **full physics simulation** with forces for lunar module movement, octree subdivision of high-density surfaces for **collision detection**, ray tracing for **altitude detection**, shaders for visual effects, proper lighting and controls for the user.