

Samantha Gundotra

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EDUCATION

Brown University, Sc.B. in Computer Science

Providence, RI | **Graduating May 2024**

Relevant CS courses: Computer Science: An Integrated Introduction, Blockchains and Cryptocurrencies, Introduction to Computer Systems, Linear Algebra, Statistical Inference I, Introduction to Discrete Structures and Probability, Introduction to Software Engineering

ACADEMIC PROJECTS

Recommendation System, CSCI 0320

February 2022 – March 2022

- Aggregated student data from multiple API endpoints and a SQL database
- Generated a list of similar students by combining a Bloom filter and a k-d tree
- Learned to handle and merge both qualitative and quantitative data for our recommendation algorithm

Redwood (DEX), CSCI 1951L

July 2021 – August 2021

- Wrote exchange, factory, and pool smart contracts in Solidity to replicate a decentralized exchange
- Implemented a sorting algorithm to prioritize limit orders based on market exposure
- Utilized a local Ethereum development blockchain to ensure minimal gas was consumed during deployment
- Unit tested with mocha framework

Search, CSCI 0180

June 2021 – July 2021

- Executed the Page Rank algorithm for a search engine
- Preprocessed XML files containing the corpus
- Parsed, tokenized, and stemmed user input
- Indexed a corpus with 5,000 pages in 8 minutes

PERSONAL PROJECTS

Valentine's Day@Brown, Frontend/Backend Developer

February 2022

- Developed a website where students could send virtual candy grams to peers
- Conceptualized, created, and designed the landing page, message form, and about page.

Zazz, Founder and Developer

July 2021 – Present

- Built an IOS app that tells users if the color of an item of clothing is flattering
- Designed and implemented an algorithm that computes a score out of 100 based on an input image of the user's skin, and an image of an item of clothing
- Utilized graphic design experience with different color models

Fashion-MNIST

July 2018

- Built a 2D convolutional neural network to identify 10 different types of clothing
- Inspiration for my personal app Zazz

PROFESSIONAL EXPERIENCE

Computer Science Undergraduate TA, Program Design with Data Structures and Algorithms

December 2021 – Present

- Revised course material to incorporate ReasonML into assignments
- Hold 4 hours of TA hours a week for a class of over 400 students
- Incoming UTA for Intro to Software Engineering in Fall 2023

Brown Entrepreneurship: Innovation Dojo, Demo Day First-Place Winner

September 2021 – December 2021

- Served as a mentee in a semester-long workshop that culminates in competitive pitches
- Won first-place and secured seed funding for the proposal of a roommate cohabitation app

Brown Space Engineering, Ground Software Team

Summer 2021 – Present

- Utilized Figma to storyboard a mobile app
- Worked specifically on the outreach screens, which enable students to submit code and see their graphics displayed on the current orbiting satellite

Graphic Design Experience, Freelance

2019 - August 2020

- Designed 20 custom iMessage stickers for a local fashion boutique to send to customers
- Created 15 active Snapchat community filters with 31.6 million views total and 524K uses

SKILLS & INTERESTS

Languages: Java, C, Python, Solidity, HTML, CSS, Scala, Javascript, Typescript, Go, ReasonML, Swift

Toolkits: Tensorflow, Numpy, Xcode, React

Frameworks: Illustrator, Photoshop, Premiere Pro, SwiftUI, Mocha, Unity, JUnit, Figma

Interests: Collaging, singing, designing Notion templates, candle making