

# 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