

# Alexander H. Zhong

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## EDUCATION

**Carnegie Mellon University**, Pittsburgh, PA

**May 2022**

**Bachelor of Science in Computer Science** pursuing an additional major in Mathematical Sciences

**GPA:** 3.86/4.0, High Honors Dean's List

**Relevant Coursework:** Introduction to Computer Systems, Great Ideas in Theoretical Computer Science, Parallel and Sequential Data Structures and Algorithms, Principles of Imperative Computation, Functional Programming

## RESEARCH & WORK EXPERIENCE

**Github and Personal Website:** <https://github.com/alexanderzhong>, [www.alexanderzhong.com](http://www.alexanderzhong.com) (for projects and additional information)

### Software Engineering Intern – Avodigy/Eventpedia

**May 2020 – August 2020**

- Developed front end UI to display post and feed information from Firebase Firestore in social media style Android app.
- Designed data models for feed, friend, and notification systems in Firebase Firestore to maximize efficiency and pricing.
- Maintained Firestore database (NoSQL) for post, feed, and user information.
- Utilized: Java, Android Studio, Firebase Firestore, Firebase Realtime Database, GitHub

### Scotty Security – TartanHacks 2020, Ness Digital Engineering Prize

**February 2020**

- Built cross-platform mobile app that gives users holistic access to CMU's campus security resources.
- Features include location tracking, news notifications, emergency whistle, contacts page, and audio recording.
- Designed RESTful APIs for storing user locations in an online database and sending information to administrator users.
- Utilized: Node.js, HTML, CSS, Apache Cordova, RESTful APIs, Android Studio, Backend, Google Maps API.

### Network Automation Intern – NetBrain Technologies Inc.

**May 2019 – August 2019**

- Learned about network topology by analyzing sample networks and obtaining their configuration information from devices using parsers and CLI commands.
- Researched and implemented third-party integration with ServiceNow by building a POC web app using JavaScript.
- Tested NetBrain RESTful APIs and confirmed their use cases by writing HTTP calls in Python using Python's requests library.
- Built Python API parsers on the NetBrain platform for extracting information from Cisco web servers.
- Extracted and updated data using NetBrain's MongoDB.

### Ajenda – Android App

**May 2019 – Present**

- "Ajenda" is a productivity app allows users to optimize event scheduling (can be found in GitHub repository and website).
- Retrieved weather and driving distance information using OpenWeatherMap API and Google Maps API.
- Designed interactive UI with native and non-native elements, including a fully customizable calendar view.
- Incorporated full calendar functionality, along with persistent storage to store events and event information.
- Utilized: Java, OpenWeatherMap API and Google Maps API, Local Persistent Data, Android Dev.

### Research Intern - Harvard Medical School

**February 2017 – August 2017**

- Engineered and functionally studied multiple forms of therapeutic pancreatic enzyme CD39L3 in a research project.
- Published first-authored paper in "Purinergic Signaling" and presented research findings to Harvard Medical School faculty.
- Awarded Regeneron Science Talent Search National Semifinalist.
- Analyzed PNPLA3 (gene) transcription using RNA detecting software for coauthored paper published in the JHEP Reports.
- Programmed website for calculating BEAAA score using html and php and coauthored paper published in "Gastroenterology" journal.

## TECHNICAL SKILLS

**Programming:** Java, Python, C, SML, Git, Android Studio, Firebase, HTML, CSS, JavaScript, Node.js

**Languages:** Proficient in French and Mandarin

## EXTRACURRICULAR ACTIVITIES

**Business Technology Group**, Web Dev Committee and Outreach Director

**January 2019 – Present**

**Asian Student Association**, Member

**January 2019 – Present**

**Undergraduate Entrepreneurship Association**, Growth and Technology Committee

**September 2019 – Present**