# Alain Zhang

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## **ABOUT ME**

Dedicated university student interested in learning more about information technology, bioinformatics, information security, and real-world software design applications.

## **EDUCATION**

## **B.S. in Data Science, Mathematics - Computer Science**

University of California, San Diego 09/22 - 06/2026 GPA: 3.87/4.00

## LINKS

github.com/SirPuddinlot

in linkedin.com/in/alain-zhang

sirpuddinlot.github.io

## **HONORS & AWARDS**

05/2021 - Cyberpatriot XIII Finalist 8th Place All-Service Division

07/2020 - Southern California Cyber Cup Challenge Finalist 7th Place

04/2021 - Cyberstart Scholar

## **INTERESTS**

**Cybersecurity** - Hobbyist 08/2018 - Present

- Semi-regular competitor in various jeopardy-style CTFs.
- · CCDC and Hivestorm competitor.

**CalAnime Newsletter** - Copy-editor 03/2020 - Present

- Copy-edit articles before publication.
- Usually revise game and gachaoriented articles by writers.

#### CERTIFICATIONS

03/2019 - Certification of Completion for Autopsy: Digital Forensics

03/2020 - Certification of Achievement for JROTC CyberPrep

#### LANGUAGES

- Native English Speaking, Writing, Reading.
- Fluent Japanese Speaking, Reading.

#### **EDUCATION**

**Relevant Coursework -**

09/22 - Present

• (Intended 2023-24) Data Structures and Object-Oriented Design, Discrete Mathematics and Graph Theory, Theory of Computation, Probabilistic Modeling and Machine Learning, Computer Networks, Introduction to Analog Design.

#### WORK EXPERIENCE

## Fisch Bioinformatics Laboratory -

09/2023 - Present

· Research Intern.

**MDVIP** - Database Management Intern

06/2023 - 09/2023

- Optimized database connections in Jitterbit API to reduce running costs by 15 percent
- Developed database for insurance data conversion into hex format, enabling PDF generation accessible through Salesforce with SQL Server Management Studio

**San Diego Unified School District JROTC** - Comms Cyber Officer 07/2021 - 09/2021

- Reorganized and updated the SDUSD brigade website with local scholarship information and joint events between high schools.
- Achieved Lieutenant Commander through 3 years of the NJROTC program.

## PERSONAL PROJECTS

**Streaming Server** 

08/2022 - Present

04/2022 - 06/2022

- Hosted nginx-rtmp server using AWS.
- Used ffmpeg to play video files on a server over internet.

Full Stack Development - Mock Stock Portfolio App

- Developed a mock app to add and delete stocks with real-time data using Yahoo Finance API.
- Used AWS Lambda, AWS API gateway and AWS DynamoDB for the backend, and React.js/ReactStrap Library with Node.js for the frontend.
- Deployed using AWS Amplify.

#### **The Library - Content Driven Design**

02/2022 - 03/2022

- Created a relational database to track patrons' library card numbers and books on and off their accounts.
- · Made frontend UI using HTML and PHP.
- Hosted using Apache Web Server in a Cloud9 Ubuntu Server environment, set-up project with MySql phpmyadmin .
- Created own csv dataset to use in the project.

#### **Big Bang Theory Episode Directory**

12/2021 - 02/2022

• Built a single-page app in React using a previously made ExpressBBT API to provide episode descriptions and images.

#### **Big Bang Theory API**

10/2021 - 12/2022

- Developed an API, configuring BBT routes to execute callback functions for any http call. Used Express.js framework and Javascript. Deployed as a firebase cloud function to be used in Big Bang Theory Episode Directory.
- Used BBT ison dataset to fuel the project.

#### Chat-App

12/2021 - 01/2022

- Created a real-time Chat-App using Firebase for backend and React for frontend.
- Made various react components for user input, object state, and logs under a simple data model.

#### TECHNICAL SKILLS

- Languages: JavaScript, Java, Python, C, HTML, CSS, Bash/Batch, Powershell.
- · Frameworks: React, Express, Node.js.
- · Databases: Firebase Realtime, MySQL.
- · Version Control: Git
- Software: Ghidra, Autopsy, Postman, Burp Suite, Wireshark
- Clubs: Association for Computing Machinery (ACM), IEEE, and Women in Computing (WIC)