

Sean (Xiao) Zhan

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TECHNICAL EXPERIENCE & PROJECTS

LEAD FULL STACK WEB DEVELOPER MALLE LAB

Jun 2020 – Present | Brown University

- Developed two modular and scalable React web apps that allow researchers to study people's perception of fairness in criminal justice.
- One app is for researchers to design experiments (with normal curves and bar graphs) and view participant data, the other is for people to participate in those experiments.
- Used MongoDB and built a versatile Node.js API that enables integration across the two apps and Qualtrics survey tool.
- Discovered my strength in backend development and designing a customer-focused product.
- Led the development team by 1. communicating with researchers to make sure the apps meet their needs 2. planning out weekly goals for the team 3. drawing app flow charts so that everyone stayed on the same page.

CLUB SCHEDULER APP HIGH SCHOOL PROJECT

Sep 2018 – May 2019 | Cate School

- Developed a prototype iOS app *Club Scheduler* for club heads at my high school to post events and manage club members. Club members would sign up for events and get notified.
- Learned how to collaborate on github, taught my team how to use github, and designed an organized workflow for our team.

AUTONOMOUS DRONE FLIGHT INDEPENDENT PROJECT

Mar 2019 - Present

- Programmed an open-source DJI Tello drone and incorporated a body-detection image-recognition algorithm (OpenPose) to achieve autonomous flight. The drone is able to track and follow a person based on body keypoints and respond to gestures to fly in all directions.

SEARCH CLASS PROJECT

Apr 2020 | Brown University

- Programmed a search algorithm that presents most relevant Wikipedia pages given an input. The algorithm handles large-scale data and queries 50% faster than requirement for full credit.

CONNECT-4 GAME CLASS PROJECT

Nov 2019 | Brown University

- Implemented the minimax algorithm and alpha-beta pruning. The game A.I. can play against human players and other A.I.'s. My algorithm beat 95% of other A.I.'s in the class.

LEADERSHIP

TREASURER, BOARD MEMBER CHINESE STUDENT ASSOCIATION

Sep 2019 - Present | Brown University

- 2020 Fall - Acquired funding and organized an event to send care packages to incoming freshman Chinese American students and welcome them to Brown University virtually (ongoing event).
- 2019 School Year - Hosted Lunar New Year Show to celebrate Chinese culture. Coordinated with performers and directed the show with an auction to donate to COVID-19 relief in China.

PREFECT HIGH SCHOOL SENIOR COMMUNITY LEADER

Sep 2018 - May 2019 | Cate School

- Lived in a freshman boys dorm to guide and support students, such as resolving conflicts, organizing dorm olympics, and having late-night talks with students who didn't feel like they fit in at the boarding school.
- Remembered every faculty and student's name at our school of 300 people.

ABOUT ME

I'm energetic, insightful, a team player, and I can always find creative ways to solve problems. In my free time, I play Ultimate Frisbee, build and race drones, and play the guitar.

EDUCATION

BROWN UNIVERSITY, RI

COMPUTER SCIENCE

APPLIED MATHEMATICS

Sep 2019 - Present

GPA: 4.0 / 4.0

CATE SCHOOL, CA

CUM LAUDE GRAD.

HIGHEST HONOR

Sep 2015 - Jun 2019

GPA: 4.57 / 4.0

COURSEWORK

BY SUMMER 2021

Creating Modern Web & Mobile Applications
Distributed Computer Systems
Intro to Comp Systems
Deep Learning
Discrete Structures/Probability
CompSci: Integrtd Intro
Applied ODEs & PDEs
Honors Calculus & Lin. Alg.
Mngmt Indust./Nonprofit Org
Glob Hist of Art and Arch

LINKS

Website:// seanzhan.com

Github:// [seanzhan0319](https://github.com/seanzhan0319)

LinkedIn:// [sean-zhan](https://www.linkedin.com/in/sean-zhan)

SKILLS

PROGRAMMING

- JavaScript • Java • Python
- C • Swift

FRAMEWORKS

- React • React-Redux
- Node.js • Flask

DATABASES

- PostgreSQL • MongoDB

LIBRARIES

- PyTorch • TensorFlow