

Zach Zhong

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SUMMARY

Third year undergraduate at UCSD experienced in mobile/web development both as a full stack developer and a leader in startup projects using React.JS, React Native, and deployment and design of databases / API services. Familiar with fundamentals of computer architecture/system/network/security as well as machine learning.

EDUCATION

University of California, San Diego

B.S. in Computer Science

September 2020 - June 2024

- IDEA Scholar @ Jacob School of Engineering
 - Major GPA: 3.837
 - CSE 100 - Advance Data Structure, CSE 101 - Design/Analysis of Algorithm; CSE 132A - Database Management Principles; CSE 151B - Deep Learning; CSE 158 - Recommender System; CSE 120 Operating Systems; CSE 123 Computer Network; CSE 127 Computer Security; CSE 132B - Database System Implementation; CSE 135 - Online Database Analytics Applications
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RELEVANT EXPERIENCE

CutiePet

September 2021 - Present

Tech Lead / Full Stack Developer

- Responsible for onboarding new tech members and closely collaborating with project managers and designers following **agile principles**.
- Built the frontend for onboarding, integration login/sign up authentication through **AWS Cognito**, profile and messaging using **React Native** utilizing common frontend practices such as **Typescript**, hooks, forms, contexts while building reusable components.
- Built backend **RESTFUL API** with **AWS Lambda**, deploying the serverless.js through **AWS API Gateway**
- Integrated **websocket** to enable chat functionality in the frontend.
- Integrated backend service connecting to **MongoDB** with **Node.JS**.
- Implemented optimization techniques such as image caching and pre-loading to improve load times images by **50%** and ensure a smoother user experience in the frontend.

University of California, San Diego

March 2023 - June 2023

Computer Science and Engineering(CSE) Tutor

- Worked under Professor Sicun Gao for class CSE 150B: AI: Search and Optimization which includes topics such as Adversarial/Classical Search, **Reinforcement Learning**, Constraints Solving.
 - Assisted the class of 300+ students and answered questions through discussions and office hours.
 - Presented and prepared slides on reinforcement learning topics **Monte Carlo Tree Search** for podcasting.
 - Graded homework assignments and provided feedback.
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PROJECT

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- Built profile carousel and onboarding page logics web application with **Next.JS**.
- Created landing page for website.
- Transplanted web version onto **React Native** and matinted functionality/components.
- Develop reusable components with **React.JS** and invoke API calls to the **Starlette** backend.

Steam Game Data Analytics [Git Repo](#)

- Gathered using the steam api and scraped the rest of the missing data and processed them with **pandas** and **numpy in python**.
- Evaluated different heuristics functions and categorization techniques before applying different machine learning models.
- Deployed a different logisticRegression / SGD / SVM classifier to using **sklearn** library.
- Built and fine tuned a deep learning model using **pytorch** to achieve 50% accuracy in the categorization of playtime based on profile.

South Hills Countdown [Git Repo](#)

- Led and guided a team of students in developing a school mobile app using **Xamarin.Forms**, written with **C#**, and designing interface Xaml **MVC** design pattern.
- Integration with **Google Firebase** and **push notification** with realtime database.
- Added support for mac by building a menu bar application using **AppKit**.
- Served over 1000+ students and teachers at the high school of class times and upcoming events.

TritonLink132B [Git Repo](#)

- Design relational schema for **PostGresSQL** modeling classes, students, departments, sections, faculty, etc of a school's backend system, implementing appropriate constraints and adhering design to 3NF.
 - Deployed databases and frontend with **Apache Tomcat** powered by **JSP**(Java Server Pages).
 - Built frontend with **HTML**, **CSS**, **Bootstrap** and backend with **Java Servlet**.
 - Build pure SQL queries that allow a student to make a decision to report such a degree audit, professor to schedule courses without conflicts.
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SKILLS

- **Tech Stacks:** React.JS, Expo, Xcode, Android Studio, Xamarin Forms, Firebase, SQL, MongoDB, AWS S3, AWS Lambda, AWS Cognito, Azure function, Serverless, JUnitTest, Postman, Node.JS, Express.js, Django, JSP, Apache Tomcat
- **Language and Tools:** Git, Docker, DigitalOcean, AWS, Unix, C, C#, C++, Python, Javascript, Typescript, Java, PHP
- **Systems:** Verilog, SystemVerilog, Assembly, ARM