

RAY QIN

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EDUCATION

University of California, San Diego

Sep 2019 – Mar 2023

- **B.S. Computer Science**, Mathematics & Mechanical Engineering, **GPA: 3.9+/4.0**, Provost Honors

WORK EXPERIENCE

Eightfold

Jun 2022 - Present

Software Engineer, intern

Mountain View, CA

- **Championing the core infrastructure team** to provide efficient and reliable **data warehouse** services.
- **Enabling 40+ engineers** to be more effective by building new and improving existing internal tools.
- **Collaborating in production level Python** code base using tools like pdb, pytest, and pylint.
- **Actuating company vision** with **AWS services** and Apache projects related to **distributed systems**.
- **Improving reliability** by writing unit tests for every feature developed for the **continuous integration pipeline**.
- **Delivering consistent results** in accordance to the team and company schedule involving diverse teams.

MEDsmart

Sep 2021 – Mar 2022

Software Engineer, intern

San Diego, CA

- **Cut operation costs by 11%** in clinics by tracking and **automating the medication refill process**.
- **Reduced shortage response time by 7%** by generating inventory reports and visualizations.
- **Slashed inventory waste by 4%** by automating database queries and synchronization with AWS.
- Estimated future usage of medication by Implementing **LSTM machine learning** algorithm in Python.

Qualcomm Institute

Dec 2020 – Jun 2021

Software Engineer, intern

San Diego, CA

- **Spearheaded business data collection** and data processing effort from Yelp API and open city data sets.
- **Enhanced business productivity** by building analytics dashboard, data visualizations, and descriptive statistics.
- Gained insights by building **composite business profiles** through integrating data sets from multiple sources.
- Analyzed business success models and offered strategic planning with **Machine Learning** libraries.

PROJECTS

SQLightning

Database Management System

- **Developed a relational database** command line terminal with core **SQL** functionalities in **C++**.
- **Led software architecture design** for database, data flow, application layers, and component interaction.
- **Built** flexible and expressive **interfaces** and **abstractions** to enhance reusability and adaptability.
- **Improved database robustness** through input tokenizer, typed-stream encoder, and **error reporting** system.
- **Increased team reliability** by utilizing **CI/CD pipeline**, **unit tests**, **integration tests**, and **sprint board**.
- **Optimized performance by 84%** with the primary key **index system** and the **LRU cache system**.

Data Storm

Full Stack Development

- Built a **Cloud Drive** and an **Analytics Dashboard** with **React**, **Firebase**, **HTML**, **CSS**, and **JavaScript**.
- Designed a **RESTful API** using **Apache**, **Node.js**, **Express.js**, and **Passport.js** to handle client-side API calls.
- Implemented **secured CRUD routes**, **authentication**, **authorization**, and custom roles for data access.

Driverless

Deep Learning, Robotics

- **Built and programmed a 1/8 scale autonomous car** that performs on tracks with over a 90% success rate.
- Analyzed images with **Tensorflow** and **OpenCV** libraries in **Python** in embedded NVIDIA Jetson Nano.
- Developed ROS2 **object detection** package on **Docker** with YOLOv5 model achieving an accuracy of over 95%.

SKILLS

- **Tech Stack:** Python, Java, C++, HTML, CSS, JavaScript, SQL, Git, Docker, Tensorflow, Bootstrap, Linux, Bash, Firebase, MongoDB, Amazon Web Services, Apache Server, Spark, Solr, Presto, React.js, Node.js, Express.js.
- **Core Skills:** Software Architecture, System Design, Agile Development, Organizational Leadership, Data Analytics, Object Oriented Programming, Distributed Systems, Cloud Computing, Machine Learning, API Development.