

# RAY QIN

415-604-6032 | qinjianxyz@gmail.com | [Personal Website](#) | [GitHub](#) | [LinkedIn](#)

## EDUCATION

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### 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

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### Eightfold

Jun 2022 - Present

*Software Engineer, intern*

*Mountain View, CA*

- **Core Infrastructure**: Enabling 40+ engineers to be more effective by building new and improving existing internal tools. Championing the core infrastructure team to provide efficient and reliable data warehouse services. Leading a project that detects and reduces data inconsistencies between the source and the data lake.
- **Web Development**: Contributing to production flask server in Python using tools like pdb, pytest, and pylint. Actuating the team vision with AWS services and Apache projects related to distributed systems.
- **Engineering Reliability**: Improving reliability by developing unit tests for every feature developed for the continuous integration pipeline. Delivering consistent results in accordance with the team and company schedule involving diverse teams.

### MEDsmart

Sep 2021 – Mar 2022

*Software Engineer, intern*

*San Diego, CA*

- **System Automation**: Cut operation costs by 11% in clinics by tracking and automating the medication refill process. Slashed inventory waste by 4% by automating database queries and synchronization with AWS.
- **Inventory Forecast**: Reduced shortage response time by 7% by generating inventory reports and visualizations. 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*

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

## PROJECTS

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### SQLightning

Database Management System

- **Software Design**: 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.
- **Reliability**: 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.
- **Performance**: Optimized performance by 84% with the primary key index system and the LRU cache system.

### Data Storm

Full Stack Development

- **Web Dev**: Built a Cloud Drive and an Analytics Dashboard with React, Firebase, HTML, CSS, and JavaScript.
- **Restful API**: 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.

## SKILLS

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- **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.