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*
- **Core Infrastructure**: Leading a project that detects and reduces data inconsistencies in the data lake caused by data migration. Authored a design document on the data lake table update process to ensure atomic, consistent, isolated, and durable transactions. Slashing inconsistencies down to less than 3%.
- **Project Impact**: Enabling the company to build a new data visualization product that improves customer experience and increases revenue with the consistent data lake. Enabling over 40 engineers across engineering teams to be more effective by developing internal tools.
- **Backend Development**: Building the production backend in Python using tools like pdb, pytest, and pylint. Actuating the team vision with AWS services and Apache projects related to cloud computing and distributed systems such as S3, Redshift, Athena, CloudWatch, and Spark.
- **Engineering Reliability**: Improving reliability by developing thorough and precise Pytest unit tests using test doubles in every developed feature for the CI/CD pipeline. Delivering consistent results in accordance with the team and company schedule involving cross-functional teams using Jira for project management.

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.

PROJECTS

SQLightning Database Management System
- **Software Design**: Developed a relational database command line terminal with core SQL functionalities in C++. Led software architecture design for the data flows, component interactions, interfaces, and abstractions.
- **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 83% with the primary key index system and the LRU cache system.

Data Storm Full Stack Development
- **Web Development**: Built a Cloud Drive and an Analytics Dashboard with React, Firebase, HTML, CSS, and JavaScript. Collects and analyzes visitor information with client-side JavaScript and Apache server log files.
- **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
- **Deep Learning**: Built and programmed a 1/8 scale autonomous car that performs on tracks with over a 90% success rate. Implemented Tensorflow and OpenCV libraries in Python in embedded NVIDIA Jetson Nano.

SKILLS

- **Tech Stack:** Python, Java, C++, HTML, CSS, JavaScript, SQL, Git, Docker, Tensorflow, Bootstrap, Linux, Bash, Firebase, MongoDB, Amazon Web Services, Apache Server, Azure, Spark, 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.