RAY QIN

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EDUCATION

University of California, San Diego, San Diego, CA   Sep 2019 – Mar 2023
- **B.S. Mathematics - Computer Science**, B.S. Mechanical Engineering, **GPA: 3.9+/4.0**, Provost Honors

WORK EXPERIENCE

Eightfold   Jun 2022 - Present
Software Engineer, intern   *Mountain View, CA*
- **Data Warehouse**: Owned several high impact projects that improved current ETL pipelines and the monitoring infrastructure in large scale distributed systems. Enabled analysts and engineers to provide more business value.
- **Consistency Tracker**: Secured the data lake infrastructure by extending consistency trackers to company level granularity across monitoring dashboards, email reports, and alarms to 56 tables across RDS/Redshift/Firehose.
- **Atomic ETL Pipeline**: Authored and implemented a design document for an atomic data migration process. Significantly improved robustness of the data lake infrastructure. Met the Q2 goal of less than 2% inconsistency.
- **Engineering Reliability**: Developed unit tests for the CI/CD pipeline. Provided constructive feedback in code reviews. Optimized database queries to avoid timed-out requests. Used 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.

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.
- **Frontend Development**: Built responsive data visualization sites with HTML, CSS, Bootstrap, and JavaScript.

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, AWS, Azure, Docker, React, Node, SQL, Bash.
- **Core Skills:** Backend Development, Cloud Computing, Distributed Systems, Data Infrastructure.