Ruben Alejandro Ruiz Vazquez

951-478-1231 | rrubenruiz563@gmail.com | [LinkedIn](#) | [GitHub](#) | [Professional Website](#)

EDUCATION

University of California, Riverside   Riverside, CA
Bachelor of Science, Computer Science   *Aug. 2021 – March 2025*

Relevant Coursework: Data Structures and Algorithms, Discrete Structures, Compiler Design, Operating Systems, Software Engineering, Database Management Systems, Algorithm Engineering, Artificial Intelligence, Machine Learning, Software Testing and Verification

PROJECTS

RGram | *React, Node.js, Express, MongoDB, WebSocket, Google OAuth, Jest, Git*   January 2025 – March 2025
- Developed a full-stack chat application in a 4-person team, featuring real-time messaging and user account management.
- Implemented core features including Google OAuth login, JWT-based session handling, chatrooms, friend management, and user preferences.
- Built a responsive, component-based frontend using React, React Router, TailwindCSS, and DaisyUI.
- Designed a backend with Node.js, Express, and MongoDB; used Mongoose for schema modeling and WebSocket for real-time communication.
- Managed environment variables with dotenv and configured CI/CD pipelines via Git and GitHub.
- Adopted Agile practices, including sprint planning, code reviews, and task coordination.

KawrgoJumper | *React, Node.js, Express.js, JavaScript, Bootstrap, Git*   September 2024 – December 2024
- Collaborated with a team of 3 developers to develop a full-stack AI-driven logistics application for managing containerized cargo operations as part of the *Project in Computer Science: Artificial Intelligence* degree requirement.
- Designed and implemented a full-stack logistics application to optimize containerized cargo operations, incorporating AI techniques for real-time decision-making.
- Developed heuristic-based algorithms to automate container placement and ship balancing.
- Built a responsive frontend with React.js and Bootstrap, and a RESTful backend with Node.js and Express.js integrated via Axios.
- Validated system reliability and algorithm accuracy with unit tests using Jest and React Testing Library; managed collaboration with Git and GitHub.

Crime Data Analysis | *Python, PySpark, MySQL, React, Node.js, Git*   April 2024 – June 2024
- Collaborated in a team of 4 developers as part of the *Project in Computer Science: Database Systems* requirement for my degree.
- Preprocessed over 22 million police crime records across five major U.S. cities using Python scripts and PySpark, and stored cleaned data in MySQL for efficient querying.
- Developed a backend pipeline with Node.js to retrieve and serve large datasets from MySQL, supporting dynamic front-end visualizations.
- Built interactive dashboards using React and integrated Matplotlib/Seaborn to visualize crime trends.
- Applied machine learning techniques to detect crime patterns and assist in predictive analysis.
- Used Git and GitHub for version control and collaboration within an agile workflow, ensuring seamless integration of code and documentation.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, PostgreSQL, JavaScript, HTML/CSS, Rust
Frameworks: React, Node.js, Express.js, MongoDB, Bootstrap
Developer Tools: Git, GitHub, Visual Studio Code, PySpark, Google Test, Valgrind, GDB, Jest
APIs/Services: Google OAuth, Firebase, MySQL

LANGUAGES

English
Spanish