# Ryan Ilano

ryanjilano@gmail.com | linkedin.com/in/ryan-ilano | ryanjilano.com | github.com/ryanji99

## PROFESSIONAL SUMMARY

Passionate and curious Software Engineer with deep expertise in full-stack development using JavaScript-based libraries and technologies. Adept at creating scalable, user-centric applications that seamlessly integrate front-end and back-end technologies. Strong passion for continuous improvement, dedicating daily time to mastering new tools, frameworks, and best practices. Currently seeking a full-stack transition through self-driven side projects and innovative hands-on learning.

#### EDUCATION

## California State University, Northridge

Northridge, CA

Bachelor of Science in Computer Science, GPA: 3.6/4.0

Aug. 2017 - May 2022

#### EXPERIENCE

## Software Engineer

May. 2025 – Present

Northrop Grumman

Woodland Hills, CA

- Worked in Agile environment to modernize legacy research codebase by re-engineering in Java and C/C++ within Linux environments, enabling smoother transition to production systems and reducing long-term maintenance overhead.
- Built CI/CD pipelines and infrastructure with Git-based configuration management, improving release reliability and ensuring code traceability across classified programs.
- Designed modular and scalable architectures, deploying with Docker/Kubernetes to cut deployment times and enable horizontal scaling under strict performance requirements.
- Partnered with Software Leads and cross-functional stakeholders to align solutions with mission objectives, ensuring technical feasibility while meeting program deadlines.
- Received manager recognition for delivering a containerized software package that enabled a key algorithmic capability; integrated a Jenkins CI/CD pipeline to automate and improve deployment process.

## Associate Software Engineer

Jan. 2023 – Apr. 2025

Northrop Grumman

Woodland Hills, CA

- Developed an automated requirement-tracing tool in Python, boosting engineering productivity by 20% and ensuring 100% requirement-to-code traceability for mission-critical systems.
- Optimized real-time C/C++ avionics applications for UH-60V Black Hawk cockpit systems, improving system responsiveness and reducing risk of mission-critical faults.
- Enhanced code reliability by integrating static analysis tools and automated linters into the CI pipeline, reducing defect introduction in C/C++ avionics codebases and improving compliance with DO-178C coding standards.
- Built automated Python test frameworks that delivered complete requirements coverage, accelerating release cycles and minimizing manual verification effort.

# PROJECTS

Distributed URL Shortener | Next.js, TypeScript, Go, DynamoDB, Redis, Kafka

Aug. 2025 – Present

- Built high-throughput URL shortening service in Go capable of sustaining 10K+ requests/second, ensuring scalability and availability under production traffic.
- Designed Kafka-based event-driven analytics pipeline to process 1M+ daily click events asynchronously, enabling real-time insights without impacting service latency.
- Implemented distributed caching with Redis and consistent hashing, achieving 99.9% uptime while preventing collision risks in ID generation.

grep Clone | C++

May 2025 – Jun. 2025

- Developed a custom grep clone in C++ that supports regular expression features like literal characters, character sets, anchors, and quantifiers.
- Engineered a modular parser using an Abstract Syntax Tree token structure, enabling the successful parsing of complex expressions like nested groups with alternatives.

• Improved code maintainability and scalability through a clear separation of concerns, dividing the solution into distinct tokenization and matching components.

Coboards | Next.js, TypeScript, PostgreSQL, MongoDB, Tailwind CSS, Express.js Feb. 2025 - Mar. 2025

- Developed a real-time collaborative whiteboard platform leveraging WebSockets for low-latency synchronization across users.
- Implemented role-based access controls using RESTful APIs hosted on a Express.js server as well as a responsive UI, bolstering security and UX on desktop and mobile.
- Integrated whiteboard storage using NoSQL solution (MongoDB) and stored user data securely in SQL database (PostgreSQL).

Captain Chatters | Next.js, TypeScript, PostgreSQL, Tailwind CSS, Socket.io

Jan. 2025 – Feb. 2025

- Developed a real-time chat app enabling instant messaging, with seamless room creation and message history stored in a PostgreSQL database.
- Leveraged Socket.io to power bi-directional, event-driven messaging and presence indicators.

Aces | React, PostgreSQL, GraphQL, Docker, Jest, Tailwind CSS

Jun. 2022 – Jul. 2022

- Built a web-based Blackjack game with React front-end and PostgreSQL back-end.
- Exposed gameplay and high-score operations via a GraphQL API, consumed by HTTP POST requests.
- Authored comprehensive Jest unit tests to ensure component reliability and catch regressions early.

**AirPnP** | React Native, Firebase, JIRA

Aug. 2021 – May 2022

- Led end-to-end design and implementation of a React Native app that locates nearby restrooms using Firebase geolocation.
- Created UI mock-ups in Figma and translated designs into pixel-perfect React Native components.
- Managed application state with Redux to handle asynchronous data and offline caching and stored user information securely in NoSQL database powered by Google Firebase (Firestore)

## TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Java, Python, C, C++, Go, SQL, HTML, CSS

Frameworks & Tools: React, Next.js, Node.js, Redux, GraphQL, Docker, Kubernetes, Redis, Apache Kafka,

RabbitMQ, Git, Jenkins, Amazon Web Services (AWS), Google Cloud Platform (GCP), Linux

Technologies: NoSQL, MongoDB, Amazon DynamoDB, LLMs (ChatGPT, Gemini, Claude), MCP, Cursor, Windsurf