

Owen Villareal

Phone: 609-677-3429

Email: villarealowen1@gmail.com

LinkedIn: [linkedin.com/in/owen-ariza-villareal](https://www.linkedin.com/in/owen-ariza-villareal)

GitHub: <https://github.com/idqam>

Personal Site: <https://owenvillareal.vercel.app/>

EDUCATION

University of Rochester, Rochester, New York

Bachelor of Arts in Computer Science, Minor in Math | August 2019 – December 2024

SKILLS

- **Programming Languages:** JavaScript, TypeScript, Java, Python, Go, HTML, CSS, SQL
- **Web Technologies:** AWS Ecosystem, Git, Node.js,
- **Testing & DevOps:** Unit Testing, CI/CD Pipelines, Jest, Storybook, Docker
- **Frameworks & Libraries:** Spring Boot, Django, Next.js, React, FastAPI

EXPERIENCE

Inversiones Owen S, Barranquilla, Colombia, Remote

Full-Stack Software Engineer | June 2024 - December 2024

- Developed a private, bespoke dashboard web application using React, Next.js, PostgreSQL, and a Java Spring Boot backend, enabling employees to manage direct reports, upper managers to oversee company investments, and finance teams to forecast expenditures with interactive data visualizations.
- Assisted in the implementation of a machine learning microservice for loan approval decisions using AdaBoosting, integrating predictive analytics into the system to assess risk and enhance loan processing efficiency.
- Designed and enforced role-based authentication to regulate access based on employee type, ensuring secure data handling and appropriate permission levels for employees, managers, and executives.
- Developed a customer-facing portal where users could view loan details, payment plans, and points of contact, improving customer experience with a transparent and easily accessible financial management tool.

Audible, Los Angeles, California

Full-Stack Software Engineer | April 2023 - April 2024

- Implemented 30+ dynamic React components using TypeScript, including new UI features, redesigns of legacy elements, and interfaces for displaying various complex data. Ensured enhanced user experiences while prioritizing code maintainability, reusability, and modular design. Integrated Jest & Storybook for component testing and visualization, streamlining development and collaboration processes.
- Designed and implemented robust REST APIs in a Spring Boot backend, facilitating seamless data integration between upstream Amazon systems and the frontend, ensuring efficient, consistent, and reliable communication across the application stack.
- Contributed in a 5-member full-stack reporting and analytics team, driving the success of 4 major projects, including the launch of innovative features like listening metrics visualization, user retention tools, and financial data systems tailored to global market compliance. Actively contributed to critical system redesigns, ensuring scalability and alignment with agile methodologies.
- Part of on-call DevOps rotations to address high-severity incidents, diagnose team-owned system conflicts, and managed ticket resolutions and escalation workflows. Documented solutions in a comprehensive team runbook, enhancing long-term site reliability and streamlining responses to recurring issues.
- Improved software quality by developing comprehensive unit tests and mocking of services, achieving a 30% reduction in bugs and a 20% boost in release cycle efficiency. Ensured consistent and timely delivery by effectively tracking progress and prioritizing tasks using JIRA.

Audible, Los Angeles, California

Software Engineer Intern | May 2022 - August 2022

- Led the development of a React-based website for a collaborative art project with the City of Newark, showcasing interactive installations on a city map.
- Designed and deployed a serverless architecture using DynamoDB and other AWS technologies, improving system reliability and gaining hands-on experience with cloud infrastructure.
- Created and conducted unit testing of 12 React components, contributing to a production-level codebase and learning team-based best practices for software development.

Recent Projects

ArbiChat <https://arbichats.vercel.app/> Upstash, React, Next.js

- Developed and launched a chat interface for a Retrieval-Augmented Generation (RAG) chatbot, enabling users to interact with a dynamically updated knowledge base.
- Engineered a scalable document processing pipeline, automating the conversion of Markdown files into structured JSON chunks and storing them in an Upstash KV database for efficient retrieval.
- Built modular backend utilities for text chunking, embedding creation, and knowledge retrieval, improving code maintainability and scalability.
- Implemented rate-limiting and optimized search capabilities, ensuring fair API usage and rapid access to relevant knowledge base content.

Conlang Generator <https://conlang.lat> FastAPI, Next.js, React, Python

- Developed a web-based conlang generator that allows users to define phonology, word order, noun/adjective agreement, verb conjugation, case marking, and other grammar aspects.
- Designed a structured grammar specification system enabling flexible rule definitions and real-time application to generated words.
- Built a NextJS frontend and a FastAPI backend to process user-defined linguistic rules and generate structured grammar outputs.