RICARDO ZAVALA

Senior Full Stack Engineer

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SUMMARY

Seasoned Full Stack Engineer with over 9 years of experience delivering high-impact solutions across **federal**, **healthcare**, and **e-commerce** sectors. Adept at designing and optimizing frontend architectures to enhance UI/UX, while also proficient in developing robust backend microservices. Proven track record in spearheading 15+ successful production launches for Fortune 500 clients, resulting in a 43% improvement in feature delivery through efficient CI/CD pipelines. Expert in optimizing key frontend performance metrics by 51% (LCP, FID) and maintaining over 99.9% SLA uptime for systems processing 240K+ RPM (requests per minute).

SKILLS

Languages: Python, TypeScript, JavaScript, SQL, HTML/CSS

Frameworks: Django, FastAPI, React, Next.js

Frontend: Material UI, Storybook, Zustand, React Query, React Hook Form

Backend: REST APIs, GraphQL, SQLAlchemy, Docker, Celery, RabbitMQ

Cloud/DevOps: AWS (Lambda, Amplify, EC2, CloudFormation), CI/CD, GitHub Actions, Jenkins

Testing/QA: Jest, Cypress, PyTest, Selenium, Playwright

Databases: PostgreSQL, MySQL, MongoDB

Data Analytics: Pandas, NumPy, GeoPandas, New Relic, Google Analytics

Methodologies: Agile, Scrum, TDD, Microservices Architecture

EXPERIENCE

Accenture Federal Services
Remote

Senior Full Stack Engineer
04/2022 - 02/2025

- Orchestrated standardization of the USPS (United States Postal Service) component library with **Material UI** across 22 teams by spearheading collaboration with the design team, decreasing UI inconsistencies by 60%.
- Piloted the React frontend architecture using **React Hook Forms**, **Zod**, and **Zustand** for administrative functions; this boosted form submission success rate by 25% and reduced customer support tickets by 34%.
- Initiated real-time GIS mapping services using **React** and **Mapbox GL** to improve package tracking visibility aligning with Accenture's application modernization approach for government services and was adopted by 8 additional teams.
- Architected Python-based **FastAPI** microservices with **SQLAlchemy ORM** facilitating processing of 3M+ daily transactions, ensuring <50ms latency during peak usage periods of 775K~1.25M concurrent users.
- Created robust data validation pipelines using **Pydantic** schemas that decreased data inconsistency issues by 42% across the USPS platform and reduced error-related transaction rollbacks by 31%.
- Engineered and implemented a secure payment gateway, integrating with major payment processors (PayPal, Stripe, Square, Fiserv) using PCI-compliant best practices, reducing payment holding time from 7 to 4 days.
- Developed an **AWS Lambda** function to automate sales and shipping transaction reports on a weekly basis to those in USPS leadership in distribution lists.

EXPERIENCE

Cigna
Remote

Full Stack Engineer
02/2022 - 04/2022

- Built **Storybook 6.5** + **Material UI** adopted by 19 teams, reducing duplicate component development by 200+ hours monthly based on team time tracking data.
- Deployed comprehensive observability using **New Relic APM** for both **React** frontend and **Python Django** backend, creating custom dashboards that slashed issue resolution time by 33% and prevented 8 potential service outages.
- Implemented Python Django-based healthcare data processing pipeline that standardized medical record formats across 5 different source systems, improving data inconsistency by 47%.
- Created Python data analytics scripts using **Pandas** and **NumPy** that generated actionable insights from patient data, leading to a 22% improvement in patient care coordination.
- Setup **GitHub Actions** with parallelized **Cypress** test jobs for splitting a test across multiple jobs and saving test screenshots and videos for debugging.

Touch To
Austin, TX

Frontend Engineer
11/2021 - 02/2022

- Championed micro-frontend architecture using **single-spa** and **Webpack Module Federation** that enabled 4 development teams to work independently while reducing sprint integration conflicts by 41%, per Jira retrospective data.
- Optimized real-time dashboard UI updates using **XState**'s partitioned statecharts, achieving 18ms average re-render times (vs. 43ms with Context API) per Chrome DevTools Performance tab measurement.
- Created a **TypeScript**-based design system with strict type checking that reduced UI-related bugs by 47% and accelerated component development by 3.2x.
- Implemented comprehensive testing strategy (**Jest**, **Cypress**) that increased test coverage from 62% to 91% while reducing QA cycles by 6 business days.

Zappos Family of Companies
Las Vegas, NV

Web and Native Mobile Developer
10/2018 - 08/2021

- Launched PWA implementation with **React 16** that enabled offline functionality, increasing mobile conversion rates and reducing bounce rates by 17%.
- Minimized median Largest Contentful Paint from 4.1s to 1.4s through route-based React Lazy imports and Webpack vendor bundle splitting, achieving Google Core Web Vitals 'Good' status for 87% by Q2 2021.
- Automated code splitting thresholds using **Webpack Bundle Analyzer**, achieving 92 Lighthouse performance scores at scale for 1.2K+ product routes on mid-tier AWS EC2 instances.
- Architected a high-volume payment processing system with **Django ORM**, **Celery**, and **RabbitMQ** that scaled to handle 18.5M+ monthly transactions during Black Friday events.
- Designed a **GraphQL** federation layer with Python **Ariadne** that consolidated 12 legacy REST APIs, reducing frontend data over-fetching by 76% and server load by 32%.

Vegas.com
Las Vegas, NV

Web Development Intern
11/2016 - 12/2017

- Contributed to the migration from a legacy platform to a modern Java-based booking system, implementing responsive UI components that supported improved mobile user experience.
- Developed SEO-optimized landing pages using **Spring MVC** and **Thymeleaf** templates that helped increase organic traffic for entertainment event categories.
- Created build process automation with **Jenkins** that reduced deployment errors by 62% and cut release preparation time from 12 hours to 4 hours.

PROJECTS

Next-Gen CRE Matching Platform
04/2024 - 03/2025

Built a platform which automatically match off-market commercial real estate buyers and sellers, unlocking previously undiscovered market opportunities.

- Converted the traditional **JavaScript** + **React 17** project into **TypeScript** + **React 19 SSR**, implementing modern frontend architecture patterns that improved page-loading performance and SEO with a 95 Lighthouse score.
- Introduced comprehensive frontend code quality standards with **ESLint** and **TypeScript** rule configurations, establishing patterns for component composition and state management that improved maintainability.
- Transformed 10-service monolith project into microservices architecture using **Docker**, **Python FastAPI** and **Go (Golang)**, reducing deployment failures by 70% and cutting cloud costs significantly.
- Developed Python data processing pipeline using **Pandas** and **GeoPandas** for spatial analysis of commercial real estate properties, improving match accuracy by 40%.
- Built frontend deployment pipelines with **AWS Amplify**, incorporating infrastructure-as-code concepts for future Terraform implementations.
- Mentored other frontend developers in frontend best practices while establishing agile workflows that improved feature delivery timelines.

EDUCATION

University of Nevada-Las Vegas
Las Vegas, NV

Bachelor of Science, Computer Science
09/2015 - 06/2018