

ARNOLD PEREZ

📞 972-971-6840 ✉ arnolddperez@gmail.com 🔗 linkedin.com/in/arnold-perez 🐙 github.com/soyarnold 🌐 portfolio

Summary

Full-Stack Engineer with 4+ years of experience building scalable web applications using React, TypeScript, Java, Python, and AWS. Experienced in microservices, distributed systems, authentication systems, frontend performance optimization, and AI-powered applications.

Technical Skills

Languages: JavaScript, TypeScript, Java, Python, SQL
Frontend: React, React Native, Expo, Next.js, TanStack React Query, TanStack Table, Apollo Client, Tailwind CSS
Backend: FastAPI, Node.js, Express.js, Spring Boot, GraphQL, REST APIs
Cloud Tools: AWS, Infrastructure as Code (AWS CDK), Docker, Kubernetes, GitHub Actions, OpenShift
Data & AI: PostgreSQL, Microsoft SQL Server, Redis, MongoDB, Kafka, OpenAI API

Experience

IBM (California Department of Health Care Services)

May 2023 – Present

Full-Stack Engineer

San Jose, CA

- Led migration of a legacy monolithic platform to Spring Boot and Express microservices, improving scalability, accelerating feature delivery, and reducing release cycles from weekly to daily deployments.
- Built React and TypeScript applications supporting healthcare claims and eligibility workflows, delivering dynamic forms, reusable component libraries, custom hooks, and data-driven user interfaces for large-scale healthcare systems.
- Improved frontend performance through virtualization, memoization, lazy loading, and code splitting, enabling efficient rendering of datasets containing thousands of records.
- Designed REST and GraphQL APIs for healthcare workflows, using REST for transactional updates and GraphQL for read-optimized dashboards and search views; integrated Apollo Client to reduce over-fetching and improve application load times by approximately 30%.
- Implemented Redis caching strategies for frequently accessed healthcare data, reducing database load and improving application responsiveness.

IBM (Delta Airlines)

June 2022 – May 2023

Full-Stack Engineer

Dallas, TX

- Modernized legacy Java Struts applications into React frontends backed by Express microservices, improving maintainability and accelerating feature delivery.
- Built Kafka-based data processing pipelines in Python to transform XML payloads into JSON using batching and concurrent processing, improving throughput and reducing processing latency.

Projects

SecureID — Passkey Authentication Platform

May 2026

- Built and deployed a cloud-native authentication platform on AWS using React, FastAPI, PostgreSQL, Redis, ECS Fargate, RDS, ElastiCache, CloudFront, S3, Secrets Manager, and CDK.
- Implemented WebAuthn passkey authentication with challenge generation, public key credential management, cryptographic signature verification, and passwordless login flows.
- Designed a secure authentication architecture with JWT access tokens, refresh token rotation, session revocation, device management, audit logging, and infrastructure-as-code deployments using AWS CDK.

AI Learning Platform — Study & Review App

July 2026

- Built a multi-client study platform with React Native (Expo), Next.js, TypeScript, FastAPI, PostgreSQL, and Redis — mobile for capture and review, web for library management and workflows — supporting notes, URL import, AI summaries, quizzes, and review scheduling based on quiz performance.
- Separated AI processing from the API by enqueueing summary, quiz, and grading tasks to Redis-backed workers, returning responses immediately while clients track job status until results are ready.
- Integrated OAuth 2.0 login with JWT validation across mobile and web, deployed backend services with Docker Compose, and added Prometheus metrics, structured logging, and readiness checks for Postgres and Redis.

Education

The University of Texas at Dallas — B.S. Computer Science

May 2022

The University of Texas at Austin — B.S. Public Relations

May 2017