

Sean Rodriguez

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Full-Stack Software Engineer | TypeScript · Angular · Node.js · Google Cloud

SUMMARY

Self-taught software engineer, building for the web since childhood, with 8 years of professional software and data work in public health: React and Apps Script from 2018, Angular since 2020. Created Penji, a HIPAA-aligned platform for multiple products, and built its first product, Pasifika Health Data Center, for CDC-funded community health programs. Supervised staff for 4+ years, led the partner organizations' data specialists on a dotted line, and trained 300+ people in person across the U.S.-Affiliated Pacific Islands and virtually.

SKILLS

Languages: TypeScript, JavaScript, HTML, CSS/SCSS, Google Apps Script; working knowledge of Rust and C++; familiar with Python and SQL

Angular: 6 years, keeping pace with major releases through Angular 21: standalone components, signals with RxJS interop, a Redux-style store (typed actions, reducers, selectors), zoneless change detection, built-in control flow, OnPush, reactive forms, lazy-loaded routes with functional guards, HTTP interceptors, Angular CDK and Angular Material, AngularFire, ng-packagr libraries, an accessible (WCAG) UI design system

Back end and cloud: Node.js, REST APIs, serverless Cloud Functions, Firebase (Firestore, Authentication, Cloud Storage, Hosting), Google Cloud Platform (GCP): Secret Manager, IAM, Cloud Monitoring, Cloud Audit Logs

DevOps and testing: CI/CD (GitHub Actions), Git, unit and end-to-end testing (Vitest with Jest-style APIs, Playwright), emulator-tested security rules, signed desktop releases (Tauri, the Rust counterpart to Electron)

Data: NoSQL data modeling (Firestore), schema versioning and migration, ETL and data import pipelines (Excel, Google Sheets, scanned forms), data validation and quality, metrics, reporting and dashboards

Security and compliance: HIPAA, protected health information (PHI), role-based access control (RBAC), multi-factor authentication (MFA, TOTP), Firestore and Storage security rules, secrets management, audit logging

AI: Vertex AI Gemini document extraction with enforced schemas and human review; agentic development in Claude Code, including self-built multi-agent teams, councils and review workflows

EXPERIENCE

Data Evaluator	Aug 2019 – Oct 2026
Data Specialist	Feb 2019 – Aug 2019
Data Entry Specialist (temporary)	Aug 2018 – Jan 2019

Association of Asian Pacific Community Health Organizations (AAPCHO) · San Francisco, CA · Remote

- Led technology for AAPCHO's Pacific Islander health program portfolio, funded by CDC and national health associations; built Pasifika Health Data Center on Penji and planned its four-wave rollout across the program's partner organizations.
- Hired for temporary data entry; prototyped Benji in React, then built it in Sheets and Apps Script, taking 11 organizations in 5 countries and U.S. territories from paper to digital for 4,500+ participants: secured per-organization Drive folders, a Log Gatherer and Merger, a Cleaner for errors and outliers, and a Processor for pay-for-performance and projected CDC recognition. AAPCHO took ownership in 2019 with a design bonus; web rebuild from late 2019.
- Raised the share of participant data CDC's Diabetes Prevention Recognition Program (DPRP) could accept from about one in five in 2018 to 96% within a year, held through the six-year project's end: found the causes through field visits and data symptoms, then planned and applied the fixes in Benji, workflows and staff training.

- Worked with CDC project officers and DPRP data teams, ministries and departments of health, federally qualified health centers, private clinics and community-based organizations across 5 countries and U.S. territories, adapting the data system and training to each one's staff, rules and connectivity.
- Trained 300+ staff and volunteers in 30+ trainings (up to ~50 people each), in person across the U.S.-Affiliated Pacific Islands and virtually, with 1:1 support at flexible hours: data, DPRP standards, computer and system use, and field-found workflow fixes.
- Dotted-line lead for the data specialists and data intake across the program's partner organizations; managed the program data team's weekly review, six-month DPRP submissions and program metrics for evaluation and staff recognition.
- Helped hire, then trained and supervised a data specialist: set priorities, mentored and ran performance reviews.
- Managed the DPRP data submissions through which 8 of the program's 11 delivery sites, and AAPCHO itself, earned CDC Full Recognition.

Contract Software Engineer

2023

Pacific Maritime Engineering · Remote

- Built a working prototype of a supply request system for a tug and barge fleet (Angular, Firebase): crews submit requests by vessel, shoreside staff manage and fulfill them, with request history, chat and role-based views.

Supply Manager and Maintenance Specialist

Oct 2008 – Dec 2017

Pacific Maritime Engineering · Honolulu, HI

- Led deck maintenance crews of up to 9 for a tug and barge fleet of 10+ vessels: scheduled crews, assigned work, trained new crew members and prepared vessels for regulatory inspections and license renewals.
- Performed mechanical and electrical work on the fleet, including diesel engine repair and heavy machinery.
- Ran the shop's supply room: organized stock, filled want lists and picked up parts from vendors.

PROJECTS

Penji, a data platform for community health programs

2019 – Present

Independent project · creator and lead engineer

- Designed and built Penji, a platform for multiple products, each a configuration bundle of forms, workflows, rules and metrics. Its first product, Pasifika Health Data Center, built for AAPCHO, is rolling out to Benji's users.
- Built for intermittent connectivity on the 28 kbps links of the U.S.-Affiliated Pacific Islands: work in progress survives each dropout and syncs on reconnect, a sub-5 MB installer, and updates that fetch only what changed.
- Architected Penji as one TypeScript codebase configured into each product, sharing canonical types between the Angular client and Node.js Cloud Functions through one ESM/CJS build.
- Protected health information end to end: role-scoped PHI access in Firestore and Storage rules tested in the Firebase emulators; TOTP multi-factor sign-in for every user; Secret Manager secrets; PHI-redacted audit logs.
- Built AI paper-form intake: Vertex AI Gemini reads photographed forms into structured records under a server-enforced schema, and a reviewer accepts every reading before it is committed to the program's records.
- Shipped Penji as a signed desktop app (Tauri 2, Rust) through GitHub Actions CI/CD with staged auto-updates, backed by Vitest unit tests and Playwright end-to-end journeys.
- **Sands, a multiplayer game in development** (Unreal Engine 5, C++, ongoing personal project): Peer-to-peer networking with host and find-a-game sessions, player replication into the chosen level, gameplay systems such as stamina regeneration, drain and penalties, and the game's 3D art.
- **EQ Observer** (Rust, Tauri, Angular, personal project): Desktop companion app for players of an online game, with a launcher and auction price tracking. Built with AI assistance.

EDUCATION AND CERTIFICATIONS

Self-directed study in software engineering, including Stroustrup's The C++ Programming Language

CITI Program human subjects research certificates, Biomedical, 2026; Social and Behavioral Sciences, 2025