

DAVID NOHA

Full Stack Engineer - Scalable Distributed Systems

 hire-dave@netbeing.org |  Petaluma, CA |  (707) 338-4266

Expert Full Stack Engineer with 25+ years building and scaling high-throughput, distributed systems. Proven track record architecting microservices, real-time data pipelines, and cloud-native platforms supporting millions of users. Strong experience with Java, JavaScript, React, Kubernetes, Databases, Kafka, and modern observability frameworks.

AI, DISTRIBUTED SYSTEMS AND LEGACY CODE EXPERIENCE

High-Scale Systems: Architected and operated petabyte-scale data platforms, real-time data processing pipelines, and microservices handling millions of transactions and users.

AI-Assisted Development: 2+ years working with Cloud LLMs (Claude, Gemini, Qwen) and local models (mainly Qwen-coder). Experienced with AI development tools including Ollama, Cursor, GitHub Copilot, Aider, Spec Kit, and various strategies and workflows. Currently using Claude Code daily.

Code Review and Refactoring: Unlike many (most?) engineers, I actually like to read code and provide constructive review comments. I love refactoring, streamlining or deleting obsolete code, and performance optimization.

EXPERIENCE

Self-Employed

Independent Contractor – IT, Web and Mobile Development (2021-2025, except for my time at UHG)

Various projects for different companies (mostly local) doing consulting, research, web design and development, mobile development (iOS & Android) and network IT.

UHG - Optum Digital (originally Rally Health), 100% Remote

Senior Software Engineer - Data Platform (2022-2023)

- **Built petabyte-scale data lakehouse infrastructure** supporting real-time ML and analytics pipelines
- **Owned end-to-end data ingest services** deployed across multiple cloud platforms (AWS, Azure, GCP) using Kubernetes and Terraform
- **Maintained high-traffic REST APIs** interfacing with Kafka pipelines, including load testing and performance optimization
- **Implemented comprehensive monitoring** using Datadog and PagerDuty for distributed systems observability and incident response
- **Led infrastructure and documentation migrations** during integration of Rally into UHG, managing dozens of services across production environments

Technologies: Java, Scala, Python, PostgreSQL, Kafka, Kubernetes, Terraform, Databricks, Apache Airflow, Datadog, AWS, GCP, Azure, Splunk, Hashicorp Vault

Copart, Inc., Vallejo, CA (Hybrid)

Senior Software Engineer – Pricing Platform (2017-2020)

- **Led team building Java microservices and React front ends** powering real-time pricing, vendor management for 10K+ vendors, and title processing in all 50 states (and Canadian provinces)
- **Architected distributed pricing engine** calculating millions of charges monthly, representing ~98% of \$2B+ company revenue
- **Owned complete service lifecycle** - design, implementation, testing, deployment, monitoring, and 24/7 production support
- **Built comprehensive CI/CD pipelines** using Maven, Jenkins, Kubernetes, Spinnaker and custom deployment automation across multiple environments
- **Implemented service monitoring and alerting** with SumoLogic and Instana for proactive incident response
- **Collaborated cross-functionally** with product, database, and DevOps teams on rapid feature iteration
- **Maintained high availability** through load testing, performance analysis, and automated rollback procedures

Technologies: Java, Spring Boot, React, MariaDB, Redis, RabbitMQ, Kafka, Kubernetes, Spinnaker, Jenkins

Sonoma Technology, Inc., Petaluma, CA (On-site)

Senior Software Engineer - Scientific Platform (2010-2016)

- **Lead Architect for IFTDSS** - platform serving forest management workflows for federal agencies
- **Designed microservices-based Scientific Modeling Framework** handling 100-GB-scale geospatial datasets with real-time processing and data transformation for landscapes up to 5M acres
- **Implemented high-performance data pipelines** using custom protobuf protocols, achieving 10x-100x performance improvements as we evolved to larger landscapes
- **Developed gRPC-based distributed computing** framework for model execution (Java, C++, Python)
- **Built a custom DSL for workflow orchestration**, chaining UI, data processing and model execution
- **Owned production operations** including performance monitoring, capacity planning, and incident response
- **Created comprehensive testing frameworks** - unit, integration, performance, and destructive testing suites
- Presented to (and successfully passed) independent security and architecture review of IFTDSS by the Carnegie Mellon Software Engineering Institute
- Also developed a React front end and Java back end for the U.S. State Department's embassy air quality reporting system, AirNOW DOS. (Sadly DOGE took the axe to it, but it can still be seen [here on Wayback.](#))

Technologies: Java, JavaScript, React, Python, PostgreSQL, GIS, gRPC, protobuf, OpenLayers, Hibernate, Jenkins

NapaStyle, Napa, CA (Hybrid)

Director of Engineering (2005-2009), Contractor (P/T 2009-2015)

- **Sole front-end and back-end engineer** for e-commerce platform supporting multi-channel retail operations
- **Owned 24/7/365 on-call responsibilities** for internal operations AND the consumer website (thru 2008)

- **Built extensive API integrations** including OrderMotion order management, retail POS systems, third-party logistics, and marketing partnerships; later with outsourced consumer website implementations
- **Developed real-time inventory and order synchronization** across multiple channels using a hodgepodge of (mostly poorly-documented) REST APIs, file transfers and ETL
- **Implemented automated monitoring and alerting** for all critical business processes
- **Managed office IT staff** and a variety of external technology vendor and partner relationships

Technologies: Java, Oracle, WebLogic, PL/SQL, REST APIs, ETL, Nagios

Earlier Engineering Experience

ThumbJive (2004) – Built mobile back-end services and foundation libraries for BREW/J2ME platforms

Grassroots Enterprise (2000-2003) – Architected web SAAS platform on J2EE/Oracle stack serving millions of users for political parties and enterprise customers; developed and documented rich HTML templating language

One0 Development (1997-2000) – Led development for multiple Java web applications for small and large customers, including HP, SwissBank, and several overfunded (mostly dysfunctional) bubble-time startups

RadMedia (1996-1997) – Developed a Java applet to extend the company's primary product, PowerMedia, a multimedia authoring tool, to publish and view output on the Web

Autodesk (1995-1996) – Developed high performance graphics pipelines for AutoCAD R13/14 and 3DSMax 1.0. As technical lead for Whip, the display driver for AutoCAD R13, evolved it into a browser plugin and the R14 driver

Geoworks (1993-1994) – Supported the GEOS SDK with mobile device partners like HP & Nokia; interfaced with Engineering; reviewed partner code; developed tutorials and documentation

Creating Computing (1992-1993) – Designed and developed an Objective-C cross-platform GUI class library, and wrote all of the documentation

Sonatech (1991-1992) – As an intern, worked on several sensor projects for the U.S. Navy

EDUCATION

B.S. Computer Science - University of California at Santa Barbara

TECHNICAL SKILLS

Languages: Java, JavaScript/TypeScript, SQL, Python, Scala, C/C++, Bash, HTML/CSS

Distributed Systems: Kafka, RabbitMQ, Redis, gRPC, protobuf, REST, SOAP, Solr, ZooKeeper

UI/UX: HTML, CSS, React, Redux, React Router, Tailwind, Bootstrap, Material UI, Less/SASS, DataTables, jQuery

Databases: PostgreSQL, MySQL/MariaDB, MS SQL Server, Oracle, JPA/Hibernate, JDBC, PostGIS, PL/SQL

Java: Spring Boot, Hibernate/JPA/JDBC, Maven, Gradle, Guava, Apache Commons, SLF4J/Log4J, Jackson

Cloud & Container Platforms: Kubernetes, Docker, AWS, GCP, Azure, Terraform, Spinnaker

Monitoring & Observability: Datadog, Grafana, Prometheus, SumoLogic, Instana, New Relic, Zipkin, Nagios

CI/CD & Testing: Jenkins, GitHub Actions, JUnit, Selenium, Jmeter, Mocha, Jest, Cucumber, Mockito

Dependency & Static Analysis: Nexus, npm, Webpack, uv, SonarQube, PMD, SpotBugs, Checkstyle

Development Tools: IntelliJ, Git, GitHub, Bitbucket, Subversion, Jira, Confluence, Postman, Swagger/OpenAPI