

TREVER PIETSCH

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LEAD SOFTWARE ENGINEER

Specializing in Distributed Backend Systems, DevOps, Payments, and AI Integration

PROFESSIONAL EXPERIENCE

Red Cell Partners — Principal Software Engineer

2023 – Present

- Integrated CommonWell QHIN for healthcare interoperability using HL7 FHIR APIs and OAuth 2.0
- Built React + D3.js data visualization dashboard for patient analytics with real-time WebSocket updates
- Architected FastAPI + CrewAI agentic workflows with LangChain for automated aging-in-place care coordination
- Led platform team through architecture, design, and implementation of HIPAA-compliant infrastructure
- Designed secure, reusable FastAPI + SQLAlchemy backend platform enabling rapid, compliant startup launches
- Led technical POCs demonstrating LLMs (Claude Sonnet, GPT-4) for healthcare claims processing automation
- Scaled infrastructure using Kubernetes (EKS) + Terraform to support multi-tenant deployments
- Deployed GPU infrastructure (NVIDIA A100) for ML model training and inference with PyTorch

Stripe — Software Engineer

2021 – 2023

- Maintained critical card network integrations using Ruby, Java, Scala, and gRPC with Protocol Buffers
- Implemented biannual network API updates and new features including digital wallets and BNPL
- Built reconciliation pipeline using Apache Kafka + PostgreSQL for real-time settlement and dispute tracking
- Uncovered \$10M+ annual cost-saving strategies through improved reporting accuracy and fee reconciliation
- Delivered custom settlement reports with full audit trail support using Sorbet type system and Scala services

Hulu — Senior Software Engineer

2019 – 2021

- Maintained core observability tooling (Prometheus, Grafana, ELK) for Spring Boot and Kubernetes-migrated microservices
- Created Spring Boot auto-config libraries with embedded Micrometer metrics to streamline service setup across 50+ teams
- Developed DVR recording enhancements using Java + Spring Boot + DynamoDB enabling user intent-based grouping

MyFitnessPal (Under Armour) — Senior Software Engineer

2018 – 2019

- Built Finatra-based (Scala + Twitter Finagle) platform libraries standardizing microservice development patterns
- Led tech modernization initiative migrating legacy monolith to Scala microservices architecture
- Implemented GDPR-compliant account deletion using event-driven architecture (Kafka) across 20+ services

BigCommerce — Senior Software Engineer

2018

- Optimized frontend performance (React + Webpack) decreasing e-commerce site render times by 40%
- Instrumented distributed log tracing across Node.js microservices via MDC context propagation
- Built gRPC monitoring dashboards with Grafana improving system reliability and mean time to resolution

Rally Health — Software Engineer

2017 – 2018

- Enabled faster feedback loops with consumer-driven contract testing (Pact) for Scala microservices
- Developed scalable Akka HTTP services supporting United Healthcare eligibility and benefits verification
- Created API mocking tools (WireMock) for 3rd-party developers with multilingual i18n support

Study.com — Software Engineer

2014 – 2017

- Designed and built internal CMS using Java + Spring Boot supporting marketing lead generation workflows
- Implemented full-stack features (Spring Boot + Angular) with analytics dashboards improving operational performance

CORE TECH COMPETENCIES

Languages & Frameworks: Python, FastAPI, Java, Scala, Ruby, JavaScript/TypeScript, Spring Boot, Finatra, React, Angular

AI/ML: CrewAI, LangChain, llama-index, RAG, Claude/GPT-4 integration, PyTorch

Data & Messaging: PostgreSQL, Redis, DynamoDB, Apache Kafka, SQLModel, Hibernate/JPA, gRPC/Protobufs

Infrastructure & DevOps: Kubernetes (EKS), Terraform, AWS, Docker, ArgoCD, Prometheus, Grafana

Compliance & Security: HIPAA, SOC 2, GDPR, OAuth 2.0, secure API design

EDUCATION

Bachelor's of Science in Computer Science

University of California, San Diego