

JOHN DERINGER

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SUMMARY

An accomplished and driven software engineering professional with extensive experience working with event-driven microservices. Utilizes advanced AI-powered development environments to streamline software engineering workflows. Leverage agentic capabilities for building AI agents, intelligent code generation, refactoring, debugging, testing, and automated documentation; Increasing development efficiency and reducing turnaround time.

TECHNICAL SKILLS

- **Agentic coding:** Spring AI | LangGraph | TensorFlow | RAG | Augment Code | Cursor | Jupyter | Claude
- **Cloud:** AWS: EC2 | S3 | ECS | MKS | Kinesis | API Gateway | Lambda | Pinpoint | Amazon Q Developer
- **Middleware:** Kafka | MapR | JBoss | WebLogic | Tomcat | Jetty
- **Databases:** PostgreSQL / Pgvector | Oracle | MS SQL Server | MongoDB | OpenSearch | DynamoDB
- **Spring:** Spring Boot | Spring Framework | Spring AI | JPA | JMS | Configuration | Spring MVC
- **Domains:** Consumer Credit | Investment Banking | Insurance | RL Research
- **Languages:** Java | JavaScript | TypeScript | Node JS | C | Obj-C | C# | Go | Python | VB .NET

EXPERIENCE

DIRECTED-AI

Bend Oregon

Principal Architect / Engineer May 2025 - present

Flagship product, Migraine-AI is an intelligent health companion designed to help users identify potential migraine triggers and optimize treatment strategies through AI-powered analysis of environmental, health, and lifestyle data.

- Developed the Migraine-AI mobile app using TypeScript and React Native, enabling users to log migraine episodes, view personalized reports, and access real-time analysis.
- Engineered the backend AI system, which includes an AI workflow, to ingest user inputs alongside real-time environmental and health metric tools, leveraging a Large Language Model to detect patterns and correlations; Java, Spring Boot, Spring AI, Docker, AWS ECS, RDS/Postgres, OpenAI.
- Regression service - Spring Boot micro-service using linear regression to find relationships between migraine occurrences and independent variables, such as weather, allergen and health metrics.
- Delivered actionable insights through data-driven reports, helping users reduce the frequency and severity of migraine episodes with tailored recommendations.
- Vector database design and implementation for RAG, context, or as a standalone semantic search engine.

SAGESURE

Remote

Staff Software Engineer Sept 2024 - April 2025

Responsible for design and implementation of event driven micro-services

- Designed and built event-driven service workflows using Java, Spring Boot, Docker, Temporal, S3, SQS.
- Database implementation using Amazon RDS Postgres, MS SQL Server and OpenSearch.
- GitLab CI/CD pipelines with the ability to deploy software updates, to production, within an hour.
- Integrated an AI customer support chatbot with backend services.

TRANSUNION

Chicago, Illinois / San Luis Obispo, California

Lead Engineer / Architect Jan 2014 - April 2024

- Responsible for the design and implementation of Transactional notification services (email, SMS, and mobile push). Event-driven systems supporting several million messages per day, with delivery within seconds. System leveraged JMS, Kafka, AWS Pinpoint, Docker and Kubernetes on Linux for high scalability.
- Business transaction tracking using Kafka, processing millions of messages per minute, for real-time metrics and anomaly detection. Producer and consumer microservices using Java and Spring/Spring Boot.
- Mobile app - Lead member of TransUnion's mobile app team. Implemented using React Native and interfaced with various TransUnion Web services.
- Managed the software release process, including Docker image creation, functional and regression testing, release instructions, merging, tagging, and production verification.
- Developed microservices using Java, JSON, Swagger/OpenAPI, Spring Boot, MS SQL Server, Oracle and Kafka.
- Mentored developers and conducted mid-year and end-of-year reviews.
- Migration team member designing the strategy and design of TransUnion's migration to AWS.

ADDITIONAL EXPERIENCE

STANFORD RESEARCH INSTITUTE (SRI), Senior Engineer, Feb 2008 - Dec 2013

Architected and implemented Reinforcement Learning AI agents by modeling environments, defining reward structures, and tuning learning policies to achieve stable, scalable, and goal-driven autonomous behavior.

Exposed SRI AI services through scalable RESTful APIs, implementing concurrency management and thread-safe execution to support high-throughput, multi-client environments. Technologies included Microsoft and Java ecosystems.

LEHMAN BROTHERS, Lead Engineer, Jun 2001 - Feb 2008

Mortgage-backed-securities - Architect and Lead engineer of a Java web application developed for Lehman Brothers' mortgage trading operations, enabling risk assessment, analysis, sampling, and securitization of hundreds of thousands of loans. The application supported the statical sampling of loan populations to run various risk assessments, including credit profiles, fraud scores, and high-risk areas. Facilitated categorizing loans, creating mortgage pools and securities tranches.

PROFESSIONAL DEVELOPMENT

AWS - Certified Architect | **Confluent** - Certified Kafka Developer | **SUN** - Certified Java Developer

Stanford University | **DeepLearning.AI** - Machine Learning Specialization

IBM - Building AI Agents and Agentic Workflows Specialization

Vanderbilt University - AI Agent Architecture in Java with Generative AI Specialization

DeepLearning.AI - Agentic AI | Semantic Caching for AI Agents | Agent Skills with Anthropic

EDUCATION

UNIVERSITY OF PUGET SOUND, Tacoma, Washington

Bachelor's Degree: double major in Finance and Economics

Specialization: Multi linear regression, predictive analytics, and financial modeling