Richard Franks

Principal Software Engineer – Full Stack
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Summary

Full-stack Principal Software Engineer with 15+ years of experience architecting **end-to-end solutions** across **frontend, backend, and cloud**. Known as the engineer of choice for the **hardest, mission-critical problems** — colleagues describe him as "the closest to a 10x developer," consistently delivering **high-quality solutions at record speed**.

Expert in **React/Next.js/TypeScript** and **Java/Python RESTful APIs** (Spring Web, Hibernate, Django, Flask), with deep experience in **Azure cloud deployments, CI/CD pipelines, and GitHub Actions workflow automation**. Pioneered **GenAI-driven healthcare applications** including EHR summarization, podcasts, structured data extraction, and real-time clinical Q&A. Recognized with **STAR Awards** for engineering excellence and delivery of high-impact releases.

Core Strengths

- **Frontend Engineering**: React, Next.js, TypeScript; design systems, reusable UI libraries, single-spa monorepos
- **Backend Engineering**: Python (Django, Flask), Java (Spring Web, Hibernate), TypeScript Azure Functions
- **APIs & Cloud**: RESTful APIs, CRUD microservices, Azure FunctionApps + CosmosDB, Azure Container Apps
- **GenAI Integration**: AI APIs for EHR summarization, **problem extraction**, and **clinical decision support** (medication orders, labs, procedures)
- **DevOps & CI/CD**: GitHub Actions workflows, build/test/deploy automation, cloud-native deployment strategies
- **Databases**: CosmosDB, PostgreSQL, MongoDB, MySQL, (some Oracle)
- **Architecture & Design**: Full-stack architecture, microservices, event-driven systems, scalable web applications
- **Collaboration & Leadership**: Cross-functional team leadership, mentoring, architecture board participation, platform strategy
- **Problem Solving**: Known for tackling complex, high-impact challenges with innovative solutions
- **Leadership**: Mentored teams of 3–4 senior engineers directly, supported 15–20 via platform and framework leadership
- **Recognition**: Multiple STAR Awards, Employee of the Quarter nomination

Experience

Commure | Senior Software Architect / Principal Software Engineer

June 2022 – July 2025 | Waltham, MA

- Delivered **full-stack GenAI-powered applications** for physicians, including patient summaries, podcasts, and real-time Q&A.
- Architected **Python AI APIs** to:
  - Extract **problems, complications, and risk factors** from clinical notes with ICD-10, SNOMED, and anatomical coding.
  - Suggest **medication orders, labs, and tests/procedures** aligned to extracted problems with RxNorm and LOINC standards.
- Built **CRUD RESTful APIs in Azure FunctionApps (TypeScript)** integrated with **CosmosDB** for scalable data access.
- Developed React/Next.js UIs to deliver AI insights directly into clinician workflows.
- Deployed containerized backends in **Azure cloud environments** with automated **CI/CD pipelines via GitHub Actions**.
- Mentored engineers across UI and backend domains, guiding architectural decisions and cloud deployment practices.

PatientKeeper | Principal Software Engineer / Architect

2013 – 2022 | Waltham, MA

- **Rebuilt legacy physician portal** into a **customizable dashboard framework**, powering 200+ gadgets.
- Designed and delivered **REST APIs** using **Spring Web and Hibernate** to support EHR applications.
- Built **React/TypeScript monorepo libraries** for reusable UI components adopted enterprise-wide.
- Active **Architecture Board member**, shaping full-stack technology strategy and standards.
- Implemented **GitHub Actions CI/CD pipelines**, improving release cadence and developer productivity.
- Recognized with **STAR Award (2020)** for leading UI work critical to the successful 9.2 release.
- **Employee of the Quarter nominee (2018)** for platform contributions.

CashStar | Engineer

2009 – 2010 | Portland, ME

- Built **Java REST service layer** (Spring Web/Hibernate) integrating with 36+ payment processors.
- Achieved **99.88% uptime** with 24x7 support, praised by partners for delivering certification tasks faster than any previous engineer.

Additional Roles

- **REZ-1**: Enterprise backend + UI development with **Spring, Hibernate, Vaadin, Liferay**.
- **IDEXX**: Java/J2EE consultant on high-visibility veterinary practice management platform.
- **Fetch Enterprises**: Full-stack development in Java, Django, and web services.

Recognition & Awards

- **STAR Award (2020)** – PatientKeeper 9.2 UI release

- **STAR Award / Employee of the Quarter Nomination (2018)**

Education

M.S. Computer Science – University of Southern Maine
B.S. Biomedical Engineering – Boston University