Joseph Kotzker

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About me

I'm a senior software engineer at Fandom, working across the full stack with a focus on the backend systems and services behind a platform of tens of thousands of wikis and millions of users. Before Fandom, I was a full-stack developer at GiveSignup | RunSignup, building event, communication and donation tools for non-profits, and before that I spent nearly four years at Sparta Systems building quality-management applications. I have a B.S. in Computer Science from Rutgers University.

Work experience

Senior Software Engineer, Fandom

2026-04 – present

- Core member of a small team on a platform-wide search overhaul, modernizing the platform's search stack and index to support AI-powered and AI-assisted search
- Take an active role in driving initiatives from design through delivery, with substantial collaboration across teams and with partners outside the company
- Use LLM-powered coding tools and agents extensively day to day, and build the workflows around them: agent skills, plugins and Model Context Protocol (MCP) integrations

Software Engineer II, Fandom

2023-01 – 2026-04

- Backend engineering for a large wiki platform under sustained high traffic
- Built and maintained Java and Spring Boot microservices, and led several framework migrations
- Developed queue-based, message-driven pipelines with RabbitMQ
- Worked across AWS, Google Cloud and Fandom's own internal infrastructure
- Extended Fandom's MediaWiki-based wiki platform, which carries thousands of platform-specific customizations, through first- and third-party extensions
- Built early AI- and LLM-powered user-facing features at scale, using retrieval-augmented generation (RAG) with a vector database and a hosted LLM
- Adopted agentic development and LLM-assisted coding tools early

Software Developer, GiveSignup | RunSignup

2021-04 – 2022-12

- Full-stack development on a web platform for event, communication and donation management for non-profits, in PHP and MySQL with modern HTML, CSS and JavaScript
- Led the technical design and ground-up rework of the platform's reporting features, and redesigned the donation flow for fundraising campaigns

Senior Software Engineer, Sparta Systems

2020-01 – 2021-03

- Developer and technical lead on a suite of cloud quality-management applications; led major redesigns of the audit-trail feature and the core workflow engine

- Led the design of a configurable FMEA (Failure Modes and Effects Analysis) feature, and improved the CI process to support review and approval of critical changes

Associate Software Developer, Sparta Systems

2017-06 – 2019-12

- Full-stack development on the company's primary cloud quality-management application, taking on a leadership role on several Agile teams over time
- Built internal tooling to improve the development lifecycle

Intern, Fax Express

2016-05 – 2017-05

- Built always-on VPN connections for remote Linux servers, and a Python service that recorded barcodes scanned in the field

Skills

- **Languages:** strongest in Java, PHP and JavaScript (including Node.js); experience with Python and C
- **Backend:** Spring and Spring Boot, microservice architecture, and common Java libraries such as Lombok, jOOQ, Liquibase, Jackson and Retrofit
- **Messaging:** message-driven systems and pipelines with RabbitMQ
- **Cloud:** AWS, Google Cloud and internal infrastructure platforms
- **Search and AI:** AI-powered search, RAG and vector databases
- **AI-assisted development:** agentic coding workflows and LLM-powered coding tools and agents; development of agent skills, plugins and MCP integrations; comparative prompt development and evaluation
- **Build and CI:** Jenkins, including scripted pipelines in Groovy; Gradle, Maven and Docker
- **Web:** modern HTML, CSS and JavaScript; MediaWiki extensions and customization
- **Testing:** unit testing and mocking with JUnit and PHPUnit
- **Version control:** Git and GitHub, branching strategies and advanced Git usage
- **Systems:** Linux and Unix-like systems, shell scripting and the command line
- **Process:** Agile/Scrum, Jira and GitHub Issues/Projects, technical design documents
- **Spoken languages:** fluent in English and Modern Hebrew

Education

B.S. in Computer Science, Rutgers University–New Brunswick

2017-05

- School of Arts and Sciences; minors in Philosophy and Jewish Studies