Yonatan Karp-Rudin

Staff Software Engineer · Berlin, Germany

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Summary

I'm a Staff Software Engineer. I've been writing software for 12 years: first C++ on vision processing chips at Inuitive, then backend work at NICE, then backend services for SumUp's point-of-sale products, and since 2023 risk, then payments and compliance, at Billie.

Skills

Daily: Kotlin, Java, Spring Boot, OpenAPI, Kafka, Terraform, GitHub Actions, Docker, PostgreSQL, MySQL

Also: Python, TypeScript, C++, C#, Micronaut, Hibernate, RabbitMQ, Cassandra / Keyspaces, Mockito, Jenkins, MCP, Claude Code, Ollama, Whisper

Experience

Staff Software Engineer - Payments

Oct 2025 – Present

Billie, Berlin, Germany

- Took third-party transaction monitoring live after shadow mode caught lost messages and transactions that could have cost about €55k.
- Rebuilt the compliance service around hexagonal architecture and a transactional outbox.
- Designed the dead-letter and replay pattern for payment services and shipped it as a shared Spring Boot library, now in 3 services.
- Built on-call triage tooling used across about 80 production incidents, and a Backstage Payments Hub to replace Postman workflows.

Staff Software Engineer - Risk

Apr 2025 – Oct 2025

Billie, Berlin, Germany

- Moved risk decisions from Purchases to a Risk-owned orchestrator, from RFC to production.
- Led the graph fraud integration to production, reducing fraud by 4-6%.
- Authored the Buyer Risk Assessment target architecture and the tokenization specification.

Senior Software Engineer - Risk

Nov 2023 – Apr 2025

Billie, Berlin, Germany

- Built a credit limit service and a fraud-labelling service from scratch.
- Replaced synchronous Risk-Refinancing calls with the event-driven credit score our partner required to fund Pan-European refinancing.
- Moved real-time fraud features from Data Science to Engineering.
- Led EDA 2.0 across 12 repositories, simplifying setup so all engineers can use it, and set shared CI and code standards for Risk.

Senior Software Engineer

Jun 2019 – Nov 2023

SumUp, Berlin, Germany

- Cut new service setup from a week to 1-2 hours with a service template.
- Built the money library shared by SumUp's backend and Android apps, and the authorization and permissions libraries for point-of-sale services.
- Migrated 6 years of historical data with minimal production impact.
- Added SLOs and on-call for critical point-of-sale services, showing how much risk we could take, how fast we responded, and what mattered.

Backend Software Developer

Dec 2017 – May 2019

NICE, Ra'anana, Israel

- Refactored a product's cache system for performance and reliability.

C++/C# Developer

Aug 2014 – Dec 2017

Inuitive, Ra'anana, Israel

- Developed algorithms for vision processing chips in C++.

Open source, AI & writing

- Added Spring Boot 4 and Jackson 3 support to the kotlin-spring generator in openapi-generator, among 6 merged generator PRs.
- Wrote and maintain ff4k, a Kotlin Multiplatform feature flag library published on Maven Central.
- Built Mimic, a Mac app that turns a picture or a description into a 3D-printable miniature, with local models and print prep written in Swift.
- 15 posts on Kotlin, backend engineering, and AI coding agents on my blog, including giving Claude Code a long-term memory with hooks.
- Spoke at Kotlin User Group Berlin on code smells (Oct 2023), the xkcd comics (Nov 2024, write-up) and Kafka multi-message topics (Jun 2026), and at DevFest Venezia 2023 (Dec 2023) on lessons from a system design failure (write-up).

Education

Advanced Software Architecture with Residuality Theory

2024

Avanscoperta · credential

Reichman University 2012–2016

B.Sc. Computer Science