

# Yonatan Karp-Rudin

Staff Software Engineer, Payments · Tel Aviv, Israel (relocating from Berlin, Jan 2027)

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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 services for SumUp's point-of-sale products, and for the last three years risk and compliance at Billie.

At Billie I joined the core architecture team and took two vendor integrations from an RFC to production, Ravelin for graph-based fraud detection and ComplyAdvantage for transaction monitoring. I also started three services from scratch and co-built the core of our Risk Orchestrator. A lot of my time went into the less visible work, like API contracts, dead-letter handling, monitoring, and being on call when something broke.

## Staff+ Focus

|                                                                                                        |                                                                                                      |                                                                                               |
|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Defined compliance and risk service boundaries across vendor behavior, event flows, and product rules. | Drove API-first backend design with Kotlin, Java, Spring Boot, Kafka, Flink, OpenAPI, and Backstage. | Turned operational risk into recovery paths, monitoring, migration plans, and upstream fixes. |
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## Experience

### Staff Software Engineer - Payments

Oct 2025 - Present

Billie, Berlin, Germany

Owns payments/compliance platform reliability across service boundaries, vendor integrations, migration work, and operational tooling.

- Took ComplyAdvantage transaction monitoring live, validated in shadow mode before blocking payments.
- Designed the dead-letter and replay pattern for payment services and shipped it as a shared Spring Boot library.
- Rebuilt the compliance service around hexagonal architecture and a transactional outbox.
- Built a Backstage Payments Hub that replaced Postman workflows, and on-call triage tooling used across about 80 production incidents.

### Staff Software Engineer - Risk

Apr 2025 - Oct 2025

Billie, Berlin, Germany

Led Staff-level risk work: moving risk decisions into a Risk-owned orchestrator, the Ravelin fraud integration, and the target architecture for buyer risk.

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

### Senior Software Engineer - Risk

Nov 2023 - Apr 2025

Billie, Berlin, Germany

Built Risk's credit limit and fraud-labelling services, and moved risk signals to event-driven, engineering-owned pipelines.

- Built a credit limit service and a fraud-labelling service from scratch.
- Moved real-time fraud features from Data Science to Engineering.
- Replaced synchronous calls between Risk and Refinancing with an event-driven credit score for Pan-European refinancing.
- Led EDA 2.0 across 12 repositories and set shared CI and code standards for the Risk team.

### Senior Software Engineer

Jun 2019 - Nov 2023

SumUp, Berlin, Germany

Built shared backend foundations: a service template, a money library used across backend and Android, and large data migrations.

- Cut new service setup from a week to 1-2 hours with a service template.
- Migrated 6 years of historical data with minimal production impact.
- Built the money library shared by SumUp's backend and Android apps, and the authorization and permissions libraries for point-of-sale services.
- Introduced SLO monitoring and on-call rotations for critical point-of-sale services.

Backend Software Developer

NICE, Ra'anana, Israel

Backend development on a distributed product, focused on cache performance and reliability.

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

■ Built Jira-integrated release tooling in Python.

Dec 2017 - May 2019

C++/C# Developer

Inuitive, Ra'anana, Israel

Vision-processing algorithms in C++, and production lines for the chips in South Korea and China.

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

■ Set up production lines and their calibration tooling on-site in South Korea and China.

Aug 2014 - Dec 2017

■ Open Source & Writing

■ Added Spring Boot 4 and Jackson 3 support to the kotlin-spring generator in openapi-generator to unblock Billie's Payments move to Spring Boot 4, then fixed the regressions that followed (10 upstream PRs).

■ 14 posts on Kotlin and backend engineering on my blog.

■ Wrote and maintain ff4k, a Kotlin Multiplatform feature flag library published on Maven Central.

■ Spoke at Kotlin User Group Berlin about JVM backend design patterns.

■ Education

Advanced Software Architecture with Residuality Theory

2024

Workshop · credential

Reichman University

B.Sc. Computer Science

2012-2016