# Eduard Gergo Ruzsa

Senior Backend Software Engineer · Berlin, Germany

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Backend engineer with 7+ years of experience designing distributed systems and production APIs across fintech, manufacturing automation, and developer tooling. I care about clean architecture, reliability, and pragmatic AI-augmented workflows that let small teams ship like big ones.

## SKILLS

**Backend:** Kotlin, Python, TypeScript, Java, C++, Ktor, GraphQL, gRPC, Protobuf, Temporal, Airflow, PostgreSQL
**Cloud & DevOps:** AWS, RDS, Lambda, Docker, Kubernetes, Terraform, Helm, GitLab CI/CD, GitHub Actions, Prometheus, Grafana
**Architecture & Leadership:** Microservices, Event-Driven Architecture, technical mentoring, hiring, code reviews, Agile/Scrum, AI-augmented engineering

## EXPERIENCE

### Senior Software Engineer · Mirror — Berlin, Germany — 2025 – now

- **AI-augmented development:** sustained team velocity through a headcount reduction from 4 to 2 engineers; owned specification, architecture, and review of all AI-generated code across Kotlin and Rust services.
- **Transaction processing:** own the Kotlin/Temporal service turning bank transactions into encrypted settlement reports: cursor-based sync, worldwide timezone resolution, and multi-currency settlement via an in-house rates service (Polygon.io, ECB, BoE, SNB, Fed). Integrated the L2 attester chain and a remote signer; hardened with infinite-retry workflows and a gRPC channel leak fix.
- **Open banking platform:** architected a multi-provider consent lifecycle (Plaid, Yapily, Teller, Quiltt, MX) over gRPC with UK 90-day renewal, expiry webhooks, and idempotent activation. Delivered the Plaid, Yapily, and Teller integrations in a Rust gRPC bank-data service, including a breaking consent API redesign, and migrated the consent service onto it.
- **Observability:** added Prometheus business and Temporal SDK metrics, Grafana dashboards, alert rules, and runbooks across four production services.
- **E2E testing:** built a Kotlin/JUnit E2E framework with browser-driven tests against Plaid Link, Yapily, and Teller Connect, WireMock transaction injection, and AWS Secrets Manager config; suites run in parallel in CI.

### Software Engineer · Portal — London, United Kingdom — 2024 – 2025

- **Traceability & events:** co-designed an event-driven traceability system with schema modeling and a Kotlin outbox client library for durable delivery via Postgres, with partitioning and automatic retry.
- **Manufacturing services:** built device batch provisioning workflows, food pod production management with GS1 code generation, and a label generation service with a GraphQL API and QR codes.
- **Search service:** designed a Kotlin Ktor service for address search and reverse geocoding; cut API costs by 90% through Caffeine caching.
- **Platform libraries:** led migration to Ktor 3, Koin 4, and gRPC 1.70; built Snowflake ID generation, backwards pagination, and a Gradle meta-plugin adopted by 6 developers.

### Software Engineer · Arrival — London, United Kingdom — 2022 – 2024

- **Data pipelines:** developed Airflow pipelines on Kubernetes extracting, repairing, and pushing 100GB+ of PLM data from Siemens NX, cutting designer feedback loops from days to hours.
- **API:** designed data storage, validation, and provisioning with AWS RDS, Lambdas, and Hasura for a GraphQL service; fully automated data releases, replacing a manual process.
- **Infrastructure:** defined infrastructure as code with Terraform for reproducible RDS and VM instances.
- **Developer experience:** introduced Nix for reproducible environments; assisted the Docker-to-Podman transition.

### Software Engineering Lead · Peakism — London, United Kingdom, part-time — 2022 – 2023

- **Technical leadership:** led MVP development of a web application (Python API + React TypeScript); defined architecture with the CEO, hired the first engineer, and managed AWS infrastructure and CI/CD.

### Software Engineer · Autodesk — Birmingham, United Kingdom — 2019 – 2022

- **3D printing features:** developed a Qt settings editor for Fusion 360 and implemented per-model customization by decomposing the toolpathing kernel in C++, a feature that differentiates the product from competitors.
- **API development:** ported the public mesh API into a new sub-module with CMake integration without disrupting existing add-ins; built AWS Lambdas for CAD assembly processing.
- **Infrastructure:** built a multi-repository tool for automated building, testing, and merging using the GitHub API and Python.

## EDUCATION

### BSc Computer Science · University of Birmingham — 2016 – 2019

Led a robot programming team; developed a multiplayer game with an 80% game-loop optimisation (ranked 3rd of 16 teams); evaluated post-quantum cryptography timing security in the final year.

### Mathematics and Computer Science · Colegiul National Vasile Lucaciu — 2012 – 2016

Baccalaureate: 9.70/10 Mathematics, 9.30/10 Computer Science. Cambridge Advanced English C2.