

MACIEJ KOPEĆ

Software Engineer

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● Kraków

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• SUMMARY

Backend engineer with 6+ years of experience designing and operating distributed systems in production. Strongest in Go, with additional experience in Rust, Python, Java, and TypeScript. Focused on scalable infrastructure, data pipelines, and low-level software, with an interest in open-source and cybersecurity.

• EXPERIENCE

Independent Software Engineer — Freelance

02/2025 - Present

Kraków

- Designed and shipped Ksefilusz, a cross-platform desktop application for Poland's national KSeF e-invoicing system.
- Created and maintain several open-source software projects.
- Worked on freelance software projects for multiple clients.
- Deepened expertise in systems programming and computer science fundamentals, with a focus on C, Rust, Assembly, computer architecture, networking, and cybersecurity.

Backend Developer — Lerta (currently Photon Energy)

10/2022 - 02/2025

Remote

Project: *IoT platform for supervising PV farms, wind turbines, and biogas plants, plus an energy trading system and customer/admin web applications.*

- Developed and maintained a distributed backend of ~150 microservices across Go, Java, Python, and TypeScript.
- Designed and optimized time-series data pipelines in TimescaleDB and InfluxDB, processing billions of records.
- Resolved production messaging bottlenecks in Kafka and RabbitMQ, improving system reliability under load.
- Managed Kubernetes deployments with Helm, Docker, and CI/CD pipelines.
- Provided on-call support and production troubleshooting to maintain service availability.
- Participated in technical interviews focused on Go, distributed systems, and system design.

Software Engineer — Amartus

10/2021 - 10/2022

Remote

Project: *Backend and full-stack services for provisioning and monitoring F5 network devices.*

- Built backend and full-stack services to provision and monitor F5 BIG-IP devices, covering DNS, L4/L7 load balancing, and firewall configuration over their device APIs.
- Worked close to the network layer: DNS resolution, TCP/IP load-balancing rules, firewall policies, and device time/location consistency.
- Provisioned and managed Linux VMs on Type 1 and Type 2 hypervisors for device emulation and test environments.
- Collaborated daily with network engineers across the UK, China, and India.

Kraków

Project: *Mobile service-ordering app and interactive educational platform.*

- Built REST and GraphQL APIs in NestJS, integrating Salesforce, Stripe, and HubSpot.
- Implemented asynchronous messaging pipelines with RabbitMQ and high availability in mind.
- Managed cloud infrastructure on Azure and DigitalOcean using Docker and Kubernetes.
- Mentored new team members through code reviews and pair programming.

• SKILLS

LANGUAGES

Go · Rust · Python · Java · TypeScript · C · Assembly x86

BACKEND & DATA

PostgreSQL · Redis · MongoDB · TimescaleDB · InfluxDB · Kafka · RabbitMQ

INFRASTRUCTURE

Docker · Kubernetes · Helm · GCP · Grafana · Proxmox

FRONTEND

Node.js · Next.js · React · Tailwind CSS

• PROJECTS

Ksefiliusz Go · Wails · SQLite · XML

Desktop client for Poland's KSeF national e-invoicing system. Imports invoices, reconciles them against bank statements with a scoring-based payment matching engine, and generates bank-ready transfer files.

Vi SQL Go · SQL · TUI · MCPvi-sql.com

Open-source terminal UI for fast SQL querying and database management. Features full Vim mode and an MCP server that exposes database workflows to AI assistants via a standard tool interface.

Vi Mongo Go · MongoDB · TUIvi-mongo.com

Open-source terminal UI for MongoDB with Vim keybindings, optimized to make collection, document, and index changes as efficient as possible.

Fox Reader Rust · GTK4 · AIgithub.com/kopecmaciej/fox-reader

AI-powered native desktop voice reader for documents and articles with natural speech synthesis

• EDUCATION

Master of Science in Trenchless Technologies

— **University of Agriculture in Krakow**

06/2011 - 06/2016