We are looking for a Senior Software Engineer (Dual Backend) to design, build, and maintain high-performance internal engineering platforms and developer tooling supporting Future State Architecture initiatives. In this role, you will split your core backend responsibilities evenly between Java and Node.JS (TypeScript) while directly driving the integration of Agentic AI, Model Context Protocol (MCP), and autonomous developer workflows.

If you have a strong background in enterprise backend development, PostgreSQL data modeling, and API orchestration, and want to build modern, AI-augmented developer platforms in a hybrid Kraków environment, we'd love to talk to you.

Software Engineer (Java + Node.JS)

Nr ref.: 157/10/2026/PK/270921/jobs.pl Kraków (małopolskie)

What you can expect from us?

- Form of employment: **B2B contract**
- **Hybrid Work Model**: Balanced setup with 2-3 days per week in a modern Kraków office and **working hours from 9:00 AM to 5:00 PM CET**
- **High-Impact Enterprise Environment**: Direct involvement in modernizing critical technology ecosystem, combining global banking stability with modern engineering standards
- Cutting-Edge Tech Stack & AI Innovation: Hands-on experience with **Java**, **Node.js** (TypeScript), **PostgreSQL**, and early-adoption initiatives in **Agentic AI**, **Model Context Protocol (MCP)**, and autonomous developer workflows
- **Global Collaboration & Engineering Culture**: Work alongside senior architects, platform engineers, and international stakeholders within a collaborative, cross-border delivery model

Employment agency entry number 47

this job offer is intended for people over 18 years of age

What will your tasks involve?

- Design, build and maintain internal tooling that supports Future State Architecture FSA initiatives across CTO Platforms
- Develop backend services and APIs using Node.JS and/or Java
- Integrate applications with PostgreSQL and other enterprise data sources
- Design and enhance webbased user interfaces for architects and engineering teams
- Build and manage agentic AI workflows using autonomous AI agents
- Orchestrate AI agents to automate software build testing deployment and engineering tasks
- Implement MCP toolcalling functioncalling and API integration patterns
- Collaborate with architects platform engineers and stakeholders to translate business requirements into technical solutions
- Ensure solutions meet security resilience performance testing observability and supportability standards
- Contribute to code reviews automation DevOps practices and operational support
- Continuously improve internal tooling engineering processes and platform capabilities

What we expect from you?

- **Backend Expertise:** 7+ years of experience in backend engineering, with strong hands-on proficiency in both Java and Node.js (TypeScript)
- **Database & APIs:** Deep hands-on knowledge of PostgreSQL (data modeling, query optimization) and scalable enterprise API design
- Internal Tooling & Architecture: Proven track record in building internal developer platforms, tooling, or solutions for enterprise architecture
- **Agentic AI & Integration:** Practical exposure to or strong interest in Agentic AI, AI agent orchestration, MCP (Model Context Protocol), and Function/Tool Calling patterns
- Production Engineering Standards: Understanding of production-grade practices: security, resilience, performance, observability, and automated testing
- Collaboration: Strong communication skills to work effectively with global engineering teams and cross-functional Stakeholders
- Nice to have: Hands-on experience with DevOps automation, CI/CD, and operational support