Daniel Pavlov

daniel.pavlov@gmx.de | linkedin.com/in/pvlov | github.com/pvlov

EDUCATION

Technical University of Munich   Oct. 2022 – Oct. 2026
Bachelor of Science in Computer Science, Minor in Medicine   *Munich, Germany*

EXPERIENCE

Junior Software Engineer   Mar. 2025 – Now
Check24 Vergleichsportal GmbH   *Munich, Germany*
- **Architected and implemented a greenfield security microservice** from scratch, developing a custom, non-blocking client for ClamAV using Project Reactor to ensure high-throughput scanning.
- Configured and automated the whole CI/CD lifecyle using **Jenkins** to deploy the service to **Kubernetes**, including publishing **OpenAPI** specs.
- Established operational visibility by building **Grafana** dashboards to monitor service health, request latency, and error rates in real-time.

Working Student Software Engineering   Jan. 2024 – Feb. 2025
Check24 Vergleichsportal GmbH   *Munich, Germany*
- Migrated four core, revenue-generating services to Spring Boot 3 and Java 21, achieving **zero downtime**.
- **Reduced latency for critical application queries by 90%** by designing and implementing a custom, multi-layered caching framework.
- Promoted to Junior Software Engineer as a student based on **high-impact contributions** and performance while finishing up my studies.

Teaching Assistant (Course Instructor & Tutor)   Oct. 2023 – Mar. 2025
Technical University of Munich   *Munich, Germany*
- Course Instructor and Tutor for a **1,400-student programming course**; authored lecture slides and homework exercises that were adopted as official course material for all subsequent semesters.
- Designed and conducted weekly tutorials for core CS courses in Java (OOP, I/O, Streams, Concurrency) and OCaml (Functional Programming, Formal Verification) **receiving top student evaluations**.

PUBLICATIONS

EEG-Based Brain-Computer Interface for a Tetraplegic Individual Using Motor Imagery for Cybathlon 2024
11th International BCI Meeting, Banff, Canada
Co-Author on scientific abstract and poster, DOI: 10.3217/978-3-99161-050-2-000

PROJECTS & ACHIEVEMENTS

N/avi   github.com/pvlov/avi-case
- **Winning project of CDTM Hacks** 2025, presented as a demo station at the opening of the **OpenAI** Germany office
- Developed the **NextJS** backend using the **Vertex AI Gemini API** to perform OCR and structured data extraction on medical documents. Implemented concurrent processing and retry logic to maximize speed and reliability.

EXTRACURRICULAR ACTIVITIES

Student Researcher and Board Member   Apr. 2024 – Now
neuroTUM e.V.   *Munich, Germany*
- As **Board Member** (since May 2025), lead 60+ members across three R&D organizations (neuroTUM, OpenHardware, BioMatrix) focused on neuro-technology, robotics, hardware and machine learning.
- Single-handedly overhauled the BCI project's Python codebase, introducing a **modular architecture**, automated testing, and a CI pipeline with **GitHub Actions** to transform it into a stable, collaborative platform .
- Developed an observability application that displayed the current state of the real-time machine learning pipeline to the pilot

TECHNICAL SKILLS

Languages: Java, Python, Rust, SQL, JavaScript, HTML/CSS, Typescript
Frameworks & Technologies: React, JUnit, actix-web, Spring, Testcontainers, Project Reactor, Rest, OpenAPI, Jenkins, Kubernetes, Hashicorp Vault
Developer Tools: Git, Docker, Jenkins, OpenAPI, GitHub Actions, uv, gradle, ruff, just