Daniel Pavlov

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EDUCATION

Technical University of Munich
Oct. 2022 – Present

Bachelor of Science in Computer Science, Minor in Medicine — *Munich, Germany*

- Bachelor Thesis: Enhancing the reliability of Brain-Computer-Interfaces using uncertainty quantification in deep learning

EXPERIENCE

Junior Software Engineer
Mar. 2025 – Present

Check24 Vergleichsportal GmbH — *Munich, Germany*

- Owned the end-to-end creation of a greenfield security microservice, engineering its core with a custom, non-blocking ClamAV client built on Project Reactor to achieve high-throughput, low-latency
- Orchestrated the full deployment lifecycle by building multi-stage CI/CD pipelines to deploy via Kubernetes, including publishing OpenAPI specifications for easy adoption.

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 and unlocking key security and performance upgrades.
- Reduced latency for critical application queries by 90% by designing and implementing a custom, multi-layered caching framework.
- Selected as the recipient of an internal corporate scholarship for exceptional and promising students.
- Promoted to Junior Software Engineer as a student based on high-impact contributions and performance during the working student contract.

Teaching Assistant (Course Instructor & Tutor)
Oct. 2023 – Mar. 2025

Technical University of Munich — *Munich, Germany*

- Promoted to Course Instructor 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) and received 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

COMPETITIONS & HACKATHONS

N/avi | *Next.js, GenAI, React, Typescript, HTML/CSS*

- Winning project of CDTM Hacks 2025, presented at the opening of the OpenAI Germany office
- Built a fully functioning, ai-driven prototype that allows patients to scan their medical documents and turn it into structured data for any application

NON-PROFIT

Student Researcher and Board Member
Apr. 2025 – Present

neuroTUM e.V. — *Munich, Germany*

- As Board Member, lead 60+ members across three R&D organizations (neuroTUM, OpenHardware, Biomatrix) focused on neuro-technology, robotics, hardware and ML.
- Contributed to the research and development of a non-invasive Brain-Computer-Interface showcased on the world stage during the CYBATHLON 2024
- 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