

Julian David Schäfer

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EDUCATION

- **Technical University of Berlin** Berlin, Germany
Master of Science in Computer Science; Grade: 1.1/1.0 Apr 2021 – Apr 2024
 - **Thesis:** Vulnerability Motif Discovery in Code graphs using Causal Attention Learning (Grade 1.0/1.0)
 - **Relevant Courses:** Deep Learning 1, Machine Learning 1 & 2, Quality Assessment for Machine Learning, Machine Learning for Computer Security
- **University of Applied Sciences Dortmund** Dortmund, Germany
Bachelor of Science in Software Engineering; Grade: 1.1/1.0 Aug 2015 – Mar 2020
 - **Thesis:** Conception, development and evaluation of a decentralized operating system for the waste disposal industry using distributed ledger technology and the blockchain using the example of subcontracting (Grade 1.0/1.0)

EXPERIENCE

- **tegosgroup** Berlin, Germany
Software Architect Apr 2024 – Present
 - **AI Agents:** Reduced manual effort for processing handwritten weighing documents by 70% through the development of an intelligent agent powered by generative AI using Langchain.
 - **RAG:** Increased internal productivity by creating a document-based chatbot using Retrieval-Augmented Generation.
 - **Automated Testing:** Improved quality by leading the design and implementation of automated testing processes for complex ERP solutions based on Microsoft Dynamics 365 Business Central.
- **Fraunhofer FOKUS** Berlin, Germany
Research Assistant Feb 2023 – Nov 2023
 - **Machine Learning:** Achieved a 20% reduction in data usage for video-on-demand services by training a vision model on a labeled video dataset to predict optimal bitrate based on video content.
 - **MLOps:** Implemented MLOps practices by utilizing MLflow and Airflow to create an automated training pipeline hosted on AWS EC2.
 - **Regression Models:** Developed "Green Streaming" regression models by measuring the carbon footprint of streaming devices and presenting interactive demo websites built with Next.js on conferences.
- **KPMG** Berlin, Germany
Software Developer Dec 2021 – Jan 2023
 - **Full-stack Development:** Simplified internal processes for approximately 300 key users by developing a full-stack ticketing system with an Angular-based frontend and C# backend according to clean coding standards.
- **tegos** Dortmund, Germany
Software Developer Apr 2015 – Apr 2021
 - **DevOps:** Streamlined processes by introducing CI/CD pipelines for Microsoft Dynamics 365 Business Central.
 - **SaaS:** Built a reliable, fault-tolerant SaaS environment for Business Central in Azure using Kubernetes and Docker.

PROJECTS

- **CV Checking:** Evaluate CVs for alignment with job descriptions by leveraging generative AI and vision models.
- **Android Game:** Intuitive 2D-Game for Android developed from scratch using Java and OpenGL.
- **Cross-platform App:** Allows real-time tracking of waste collection using GPS and image analysis on iOS/Android.
- **Blog Analyzer:** Train graph neural networks on HTML of blogs to predict nodes that contain relevant content.

PROGRAMMING SKILLS

- **Programming:** Python, TypeScript, C#, Java **Methodologies:** MLOps, SCM, Testing, CI/CD, Agile
- **Technologies:** AWS, Docker, MLflow, Flask, React **Languages:** German (native), English (full professional proficiency)