Dr. Jan Kunkler

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Summary

AI leader and Principal Data Scientist with extensive experience in enterprise AI innovation and implementation across multiple domains. Currently driving Vertical AI initiatives, developing cutting-edge solutions in GenAI, computer vision, and intelligence orchestration. Ten-year journey in AI/ML includes successful implementations of production-ready AI systems, combining deep technical expertise with strong business acumen. Active educator and mentor in AI, with a PhD in data science and proven track record of translating research into scalable industry solutions.

Education

University of Regensburg, PhD in Supply Chain and Logistics – Regensburg, DE   June 2020 – Feb 2023
Machine Learning applications in logistics network optimization and sustainable transportation systems
- Developed novel machine learning models for road network performance prediction and optimization
- Published multiple peer-reviewed papers on sustainable city evaluation
- Led research initiatives in sustainable logistics and network performance optimization

University of Regensburg, MSc in Supply Chain Management – Regensburg, DE   Sept 2017 – June 2019
Specialized in data-driven decision making and quantitative methods for supply chain optimization
- Master Thesis: Developed ResNet-based computer vision system analyzing satellite imagery for logistics performance prediction
- Built end-to-end ML pipeline for estimating delivery times based on infrastructure analysis
- Combined computer vision with logistics domain knowledge to enhance shipment planning

Universität Trier, BSc in Business Administration – Trier, DE   Sept 2013 – June 2017
Focus on business intelligence and statistical analysis

Experience

Principal Data Scientist, Lobster – Tutzing, DE   June 2024 – present
Spearheading data & AI strategy for enterprise data integration and process automation solutions
- Developed and implementing company-wide Vertical AI Strategy, aligning technology initiatives with business objectives
- Leading end-to-end development of mission-critical AI initiatives, directly reporting to CTO and CPO
- Developing AI-powered automation solutions including technical documentation generation (SALMON) and intelligent mapping systems (MAPS)
- Architected classification system (CREW) achieving 74% F1 score and in-memory retrieval system (SPLASH)
- Establishing API-first centralized knowledge management system (BRAIN) for unified documentation and knowledge access
- Orchestrating collaboration between Data Center Cloud IT, Support, and Engineering teams
- Representing Lobster's AI initiatives at industry conferences and technical forums, including speaking engagements on enterprise AI implementation

Visiting Lecturer, OTH Regensburg – Regensburg, DE   Oct 2024 – present
Teaching fundamentals of programming and AI to Digital Business Management students
- Developing practical curriculum combining Python programming and AI fundamentals
- Bridging business management and technology through industry-relevant instruction
- Fostering data-driven decision making and problem-solving skills

Digital Solutions Manager, logistics cloud – Tutzing, DE   Oct 2023 – June 2024
Led digital transformation for cloud-based logistics platform serving major European transportation providers
- Developed platform connecting shippers, forwarders, carriers, and customs
- Implemented IoT tracking and blockchain services for supply chain transparency
- Established marketplace for predictive analytics and compliance services

Postdoctoral Research Associate, University of Regensburg – Regensburg, DE   Mar 2023 – Sept 2023

- Served as Interim Chair for Controlling and Logistics
- Led M.Sc./B.Sc. programs with 250+ students
- Supervised research in city logistics and AI applications
- Developed advanced analytics curriculum for supply chain optimization

Data Science Consultant, Freelance – Regensburg, DE   Jan 2021 – Oct 2023
- Developed freight tariffs for six prominent German Transportation Service Providers
- Collaborated with Prof. Dr. Andreas Otto on logistics optimization projects

Co-Founder & Technical Lead, Braun & Kunkler GbR – Burglengenfeld, DE   Jan 2020 – Apr 2022
- Developed award-winning RESET App for student self-regulation
- Collaborated with medical professionals on behavioral intervention strategies
- Led full-stack development including ML model integration

Research Fellow, University of Regensburg – Regensburg, DE   Sept 2019 – Mar 2023
- Led research in ML applications for logistics network optimization
- Supervised 50+ theses in Supply Chain Management and AI
- Developed predictive models for transportation networks
- Integrated data science approaches into logistics research

Various Positions, Early Career Experience – Germany   Aug 2017 – Aug 2019
Early career positions in research and industry
- Research Assistant at University of Regensburg (2018-2019): Supply Chain Management research and teaching
- Digital Solutions at Veolia Deutschland (2017): Implemented BizzPark app for business park management

Skills

AI Leadership: AI Strategy Development, Enterprise AI Architecture, Cross-functional Team Leadership, AI Education & Mentorship

AI/ML Expertise: Large Language Models, Computer Vision, Agentic AI, Multi-Agent Systems, Neural Networks (ResNet, Transformers), Machine Learning, MLOps

Technical Infrastructure: AWS (SageMaker, Bedrock, Lambda, Fargate), Cloud Architecture, Distributed Systems

Data Engineering: Knowledge Graphs, ETL Pipeline Design, Python, SQL, R, Go

Tools & Frameworks: PyTorch, LangChain, Hugging Face Transformers, BAML, Pydantic-AI, Docker, FastAPI, MLflow, Weights & Biases, Metaflow, Ray, Streamlit, Gradio

Publications & Books

Road Network Performance Measurements (Book)   Mar 2023
Jan Kunkler
10.5283/EPUB.53802

Sustainable City Evaluation Using the Database for Estimation of Road Network Performance   Dec 2022
Jan Kunkler, Florian Kellner
10.3390/su15010733

Speed Limit Induced CO2 Reduction on Motorways: Enhancing Discussion Transparency through Data Enrichment of Road Networks   Jan 2021
Jan Kunkler, Maximilian Braun, Florian Kellner
10.3390/su13010395

Towards Sustainable Cities: Utilizing Floating Car Data to Support Location-Based Road Network Performance Measurements   Oct 2020
Maximilian Braun, *Jan Kunkler*, Florian Kellner
10.3390/su12198145