Dr. Jan Kunkler

Straubing, Germany | mail@jankunkler.de | 0160 95131829 | linkedin.com/in/jankunkler

Summary

Principal AI Engineer building production agentic AI systems for enterprise data integration and EDI. Leading development of Pathfinder AI copilot serving 2000+ companies in supply chain and logistics. Established AI strategy, infrastructure, and team from scratch. Background spans research (PhD in data science focusing on ML applications in logistics), academia, and industry. Focus on building reliable AI systems that support critical business processes, combining technical implementation with cross-functional leadership.

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 machine learning models for road network performance prediction and optimization
- Published peer-reviewed papers on sustainable city evaluation
- Research on 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 AI Engineer, Lobster – Tutzing, DE   Mar 2025 – present

Leading development of Pathfinder, an AI copilot for enterprise EDI and data integration platform coordinating data across global supply chains. Building and scaling agentic AI infrastructure and Team Caprica to support production systems serving companies including HARIBO, Hermes, HP, Coop, Lindt & Sprüngli, and Logwin.

- Built Pathfinder from architecture to production deployment, serving 2000+ companies in supply chain and logistics with context-aware assistance for EDI workflows and data orchestration
- Designed and implemented scalable agentic AI microservice infrastructure using LangGraph, pydantic_ai, DSPy, MCP, and Google's A2A protocol for composable multi-agent systems
- Built and mentor Team Caprica, recruiting 3 AI Engineers through full technical interview and assessment process
- Delivered keynote "From Data to Intelligence - The Future of Supply Chains" at Lobster Data Hero Summit with AWS Head of Technology and AI startup leaders
- Built internal automation including HubSpot data enrichment pipeline and chatbot replacement, reducing manual effort and improving response quality
- Coordinate with stakeholders across business units including CTO and CPO, leading AI enablement and participating in Engineering Management
- Published articles on agentic AI and data integration for Illuminaire, TechRadar, Supply Chain Strategy, and DIGITALE WELT

Principal Data Scientist, Lobster – Tutzing, DE   May 2024 – Feb 2025

Joined as first AI practitioner to establish AI strategy and technical foundation. Researched and defined approach for enterprise AI implementation.

- Developed company-wide AI strategy from scratch, working with C-Level to define vision and align initiatives with business objectives
- Researched and evaluated AI frameworks, tools, and infrastructure to establish technical foundation for production systems

- Designed initial AI solutions including automated technical documentation generation, intelligent data mapping systems, classification models, and semantic knowledge retrieval
- Established architecture for API-first knowledge management system enabling unified documentation access
- Built collaboration framework between Data Center Cloud IT, Support, and Engineering teams for AI integration
- Represented AI initiatives at industry conferences and technical forums

Visiting Lecturer, OTH Regensburg – Regensburg, DE   Oct 2024 – present

Teaching fundamentals of programming and AI to Digital Business Management students

- Developed practical curriculum combining Python programming and AI fundamentals
- Teaching business management students technical skills for data-driven decision making
- Focus on industry-relevant applications and problem-solving approaches

Digital Solutions Manager, Lobster Logistics Cloud – Tutzing, DE   Oct 2023 – May 2024

Built Customer Success function for managed EDI and collaboration network (Lobster subsidiary, now Lobster Data Network). Managed custom integration projects and consulted on backend architecture improvements.

- Built Customer Success team from scratch, recruiting and training 5 team members before transitioning to Principal Data Scientist role
- Managed custom integration projects for logistics providers within managed service network built on Lobster ecosystem
- Internal consulting with tech lead on backend architecture to support growing customer requirements
- Sales engineering and technical consulting for platform capabilities, working with shippers, forwarders, carriers, and customs agencies
- Supported platform connecting IoT tracking, blockchain services, and predictive analytics for supply chain transparency

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 German Transportation Service Providers
- Worked with Prof. Dr. Andreas Otto on logistics optimization projects

Co-Founder & Technical Lead, Braun & Kunkler GbR – Burglengenfeld, DE   Jan 2020 – Apr 2022

- Developed RESET App for student self-regulation
- Worked with medical professionals on behavioral intervention strategies
- Full-stack development including ML model integration

Research Fellow, University of Regensburg – Regensburg, DE   Sept 2019 – Mar 2023

- Research on ML applications for logistics network optimization
- Supervised 50+ theses in Supply Chain Management and AI
- Developed predictive models for transportation networks
- Applied data science approaches to 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, Team Building & Mentorship, Stakeholder Management, Technical Vision

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

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

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

AI Frameworks & Tools: LangGraph, pydantic_ai, DSPy, LangChain, PyTorch, Hugging Face Transformers, BAML, FastAPI, Docker

AI Protocols & Standards: Model Context Protocol (MCP), Agent-to-Agent Protocol (A2A), API Design

Articles & Media

Why agentic AI will not replace your team, it might help you grow it   Aug 2025

Jan Kunkler

illuminaire.io/why-agentic-ai-will-not-replace-your-team-it-might-help-you-grow-it (Illuminaire)

Agentische KI als Treiber der Personalentwicklung und individuellen Performance   July 2025

Jan Kunkler

digitaleweltmagazin.de/agentische-ki-als-treiber-der-personalentwicklung-und-individuellen-performance (DIGITALE WELT Magazin)

Beyond algorithms: Agentic AI and the behavioral data scientist   June 2025

Jan Kunkler

www.techradar.com/pro/beyond-algorithms-agentic-ai-and-the-behavioral-data-scientist (TechRadar)

The agent-driven supply chain: rethinking logistics with collaborative AI   June 2025

Jan Kunkler

supplychainstrategy.media/blog/2025/06/06/the-agent-driven-supply-chain-rethinking-logistics-with-collaborative-ai (Supply Chain Strategy)

From Data to Intelligence - The Future of Supply Chains   May 2025

Jan Kunkler

www.youtube.com/watch?v=C6HI1xjnL0Y&list=PLOy4YubRIzq9Vwc1LHVj29xgOdEOteqK6&index=2 (Lobster Data Hero Summit (Keynote))

Roll call: How agentic AI is growing headcount and enabling employee success   Apr 2025

Jan Kunkler

aijourn.com/roll-call-how-agentic-ai-is-growing-headcount-and-enabling-employee-success (The AI Journal)

Die Rolle von Agentic AI in der Unternehmens-IT der Zukunft   Apr 2025

Jan Kunkler

www.bigdata-insider.de/die-rolle-von-agentic-ai-in-der-unternehmens-it-der-zukunft-a-d376e9d58a00b81050 ebcc0a16da6ad2 (BigData-Insider)

Books

Road Network Performance Measurements   Mar 2023

Jan Kunkler

10.5283/EPUB.53802

Peer-reviewed Publications

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

Maximilian Braun, *Jan Kunkler*, Florian Kellner