Lennart Levin Vetter

Machine Learning Engineer

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SUMMARY

Machine Learning Engineer with 2.5 years of expertise, implementing AI solutions in Information Retrieval, Natural Language Processing and Classification. Diploma Thesis in Inverse Reinforcement Learning for Autonomous Driving supervised by Prof. Dr. Ostap Okhrin. Proven ability to translate research papers into scalable production systems. Highly business impact oriented due to diverse background in Venture Capital and Startup Consulting.

SELECTED SKILLS

Machine Learning: Deep Learning, Transformers, LLMs, Embeddings, RAG, NLP, Bayesian ML, Time Series Analysis, Reinforcement Learning
Frameworks: Jax, PyTorch, vLLM, hf-transformers
Infrastructure: GCP, AWS, FastAPI, MongoDB, Milvus, Neo4J, Terraform, Slurm, Pydantic
Development: Python, CI/CD, Microservice Architecture, Docker, Kubernetes

PROFESSIONAL EXPERIENCE

Machine Learning Engineer   Apr 2024 - Aug 2025
35up GmbH   *Remote*
- Architected and shipped low latency, scalable Classification Service with over 5500 unique classes for E-Commerce Product Identification from prototype to production achieving 91% accuracy, eliminating manual tagging efforts.
- Architected and shipped scalable Product Recommendation Service based on graph traversal and vector search from prototype to production resulting in a 25% AI based recommendations share.
- Architected and shipped flexible Product Attribute Prediction Service for predicting arbitrary product attributes by leveraging LLM structured generation and Pydantic.
- Directly worked with CTO, outlining strategic ML roadmap for fully AI based recommendation pipeline, executing the prototyping, development and integration of ML microservices (Classification, Attribute Prediction, Recommendation).

Data Scientist   Jan 2023 - April 2024
35Up GmbH   *Remote*
- Supporting ML Team: Dataset Exploration, Dataset Cleaning and Annotating, Synthetic Dataset Generation, Web Scraping, Automation Scripts.
- Generating analytical insights, reports, plots for Founders and Sales Team.

Graduate Researcher   Aug 2023 - June 2024
Reinforcement Learning Research Group Dresden   *Dresden, Germany*
- Research on Inverse Reinforcement Learning applied to Autonomous Driving, focusing on Maximum Entropy Inverse Reinforcement Learning and Inverse Q-Learning for Car Following.
- Demonstrating that IRL algorithms successfully extract the driver's reward function from observed behavior, resulting RL agents are able to mimic the demonstrated driving behavior.
- Translating research papers into training code, training deep learning models on university's high performance GPU cluster.

Visiting Investment Analyst   Jan 2022 - April 2022
Capnamic Ventures GmbH   *Berlin, Germany*
- Managing daily Deal Flow, assessment of ~60 B2B SaaS investment opportunities per week, identifying valuable business cases and presenting them to the Team and Partners.
- Analysing and sanity checking financial plans of investment opportunities
- Hypothesis driven market research
- Simulation of captables, investigating equity dilution over time
- Stakeholder Management with Fund Investors, Startup Founders

EDUCATION

Diploma, Industrial Engineering (Advanced Data Analytics)   2026
Technical University Dresden   *Dresden, Germany*

MS, Machine Learning   2025
The Cooper Union (Exchange)   *New York City, USA*

MS, Data Science   2023
Université Paris Nanterre (Exchange)   *Paris, France*