Mark **Leznik**

Consultant · Data Scientist

LinkedIn | Google Scholar

Summary

I am a consultant and data scientist, currently specializing on GenAI topics in insurance. I develop GenAI solutions of various scenarios in and around the insurance services landscape. Prior to that I was a researcher, gaining over 10 years of combined experience in industry R&D and academic research environments. With a computer science and computer engineering background, I have a comprehensive understanding and knowledge of the machine learning applications development life cycle, from data acquisition, storage, reproducible deployment and evaluation, as well as a publication track record in these topics. I have developed methodologies for objective time series evaluation as well as subsequent time series synthesis using Generative Adversarial Networks. My core strengths lie in methodological problem assessment and solution and a goal-oriented approach. I am seeking Data Scientist and Machine Learning Engineer opportunities where I apply my know-how and deliver high quality data analysis insights and results.

Experience

Allianz Services — *Munich-Unterföhring, Germany*

Senior Consultant Emerging Technologies — *Oct. 2024 - present*

- Productivity Solutions and Innovation - Emerging Technologies:
  - Development of tailored GenAI solutions for insurance related topics

Ulm University — *Ulm, Germany*

Research Associate, Lecturer — *Jan. 2018 - Dec. 2023*

- STEALTH Project (2020-2022):
  - STEALTH: Anonymisation through Privacy-preserving Data Generation
  - Senior researcher, synthetic time series generation.
- AI Investments Project (2019-2021):
  - AII: An advanced investment tool based on machine learning and big data.
  - Data scientist & scientific consultant for time series analysis and generation.
- RECAP Project (2018-2019):
  - RECAP: Reliable Capacity Provisioning and Enhanced Remediation for Distributed Cloud Applications
  - Data science tasks & research on time series generation for cloud and telecommunication data (Partnership with Britsh Telecom).
  - Assistance in project and deliverables coordination.

Daimler AG, Mercedes Benz Research and Development (MBRD) — *Ulm, Sindelfingen, Germany*

Working Student, Intern, Bachelor- & Masterthesis — *Juli. 2011 - Apr. 2017*

- Research- and series development of several camera monitor prototype vehicles (replacement of the side-mirror with a camera and display)
- Research on surround vision systems (360 degree cameras)
- Night vision near infrared image colorization using synthetic images research

S.A.D. GmbH — *Ulm, Germany*

Student Software Developer — *Mai. 2010 - Mai. 2011*

- Development of dashboards for tracking and predicting downloads of S.A.D. software
- Development of business relations in Ukrainian market

Education

Ulm University — *Ulm, Germany*

Ph.D. Computer Science — *Jan. 2020 - Dec. 2023*

- Planned defense: June 2025
- Ph.D. thesis topic: Synthetic Time Series Workload Generation

Ulm University — *Ulm, Germany*

M.Sc. Computer Science — *Mar. 2014 - Aug. 2017*

- GPA 1.3 (very good), Majors: Computer Vision, Distributed Systems
- Master thesis topic: Luminance Estimation of Colorized Near-Infrared Images (research performed at MBRD Ulm) Grade: 1.0

Ulm University of Applied Sciences — *Ulm, Germany*

B.Sc. Computer Engineering — *Mar. 2010 - Feb. 2014*

- GPA 1.4 (very good)
- Bachelor thesis topic: Low-light Image Quality Optimization of HDR Cameras (research performed at MBRD Sindelfingen) Grade: 1.3

Skills

Data-Driven	GenAI, Machine Learning, Deep Learning, Analysis, Visualization, Computer Vision, Reproducible Research
Cloud	CI/CD, OpenStack, Rancher, Terraform, Kubernetes, Grafana, SQL & NoSQL Databases
Programming	Python, MATLAB, SQL, JAVA, C/C++, C#
Code Stacks	LangChain, Scikit, Pandas, Keras, JupyterLab, FastAPI, Flask
Languages	German (fluent), English (fluent), Russian (fluent)

Other

FUNDING *Ulm University*

Vector Stiftung STEM Research Grant (€120.000) *Jan. 2020 - Oct. 2022*

- Project STEALTH:
- Anonymisation through Privacy-preserving Data Generation

TEACHING ACTIVITIES *Ulm University*

Lecturer, Supervisor *Jan. 2018 - Dec. 2023*

- Supervision of 3 M.Sc. Thesis & 4 B.Sc. Thesis
- Lecture Exercise Introduction to Deep Learning
- Seminar in Selected Topics in Machine Learning (over 15 student works supervised)

Selected Publications

Optimization of demanding scenarios in CMS and image quality criteria

Leznik & Terzis, Handbook of Camera Monitor Systems: The Automotive Mirror-Replacement Technology based on ISO 16505 *2016*

Multivariate time series synthesis using generative adversarial networks

Leznik et al., International Conference on Performance Engineering ICPE 2021, ACM/SPEC *2021*

The Great GAN Bake Off, An Extensive Systematic Evaluation of Generative Adversarial Network Architectures for Time Series Synthesis

Leznik et al., JSyS, Journal Of Systems Research *2022*

Academic Service & Committees

2023	**Organization Committee,** The Second International Workshop on Performance - Data Analytics and Data-Management	*Coimbra, Portugal*
2022	**Organization Committee,** The First International Workshop on Performance - Data Analytics and Data-Management	*Beijing, China*
2022	**Vice-Chair,** SPEC Research Group, RG Predictive Data Analytics Working Group	*Gainesville, USA*