Varun Venkatesh

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EDUCATION

Ludwig-Maximilians-Universität München　　　　　　　　　　　**Oct 2024 - Present**
M.Sc Statistics and Data Science (Specialization in Machine Learning)

*Relevant Coursework:*Optimization, Supervised Learning, Entropy & Information Theory, Deep Learning for NLP
Upcoming Coursework: Advanced Machine Learning, Deep Learning, Statistical Learning Theory

Indian Institute of Technology (IIT), Madras　　　　　　　　　　　**May 2024**
B.S. Data Science and Applications, 9.1 CGPA - Certificate of Merit (Bronze Medal)

Relevant Coursework: Machine Learning, Reinforcement Learning, Deep Learning, Large Language Models, Advanced Algorithms, Statistical Computing

University of Groningen, The Netherlands
Completed 160/180 ECTS towards B.Sc Econometrics & Operations Research, 7.1 CGPA

EXPERIENCE

Inverso GmbH (subsidiary of Versicherungskammer Bayern & Provinzial Konzern)　　**Dec 2024 - Present**
Working Student: Data Science & Engineering for Generative AI (DAKI Lab Team)
- Design and implement end-to-end scalable ETL data pipelines using dlt, Dagster and Snowflake to streamline automated insurance coverage verification.
- Research in LLM benchmarks for insurance applications, encompassing systematic literature review, synthetic data generation and experimental design to assess AI model performance in automated coverage verification.

Machine Learning Theory Lab, IIT Madras　　　　　　　　　　　**June 2023 - Feb 2024**
Research Assistant (PI: Dr. Chandrashekar Lakshminarayanan)
- Use traditional signal processing methods to design explainable and interpretable audio denoising neural networks using PyTorch.
- Design and execute experiments, including ablation studies, to diagnose issues and validate the contributions of individual architectural components.

Bot Developer (in collaboration with the Instructor for Deep Learning and LLMs)　　**Oct 2023 - Dec 2023**
- Create a Q&A bot using Retrieval Augmented Generation using open source LLMs, Pinecone, and Gradio.

N26, Germany　　　　　　　　　　　**June - Sep 2015**
Analyst Intern
- Built statistical models, analyzed data, created visualizations to derive key performance indicators. Closely collaborated with BI and Marketing teams to propose and pitch a 1,000,000-Euro marketing plan to the CEO.

ACADEMIC PROJECTS

Indian Institute of Technology Madras　　　　　　　　　　　**Sep 2023**
Reinforcement Learning
- Design a 10,000-arm testbed to analyze epsilon-greedy action selection against UCB for Multi-Arm Bandits
- Implement SARSA and QLearning for grid world navigation, exploring various action selection methods, wind, stochasticity, and start states.

SKILLS AND ACHIEVEMENTS

Programming:	Python, C, Java
Statistics & ML:	PyTorch, R, STATA, IBM SPSS, SAS
BI, Data Warehousing & Others:	Snowflake, dlt (Data Load Tool), Dagster, SQL, Linux, LaTeX, awk
Languages:	English (C1), German (B1/B2), Dutch (A2)

Achievements:
- Attended ACM 2024 Summer School on Responsible and Safe AI
- Top contributor on AskUbuntu.com reaching over 1.1 million users