LUKAS BIERLING | RESUME
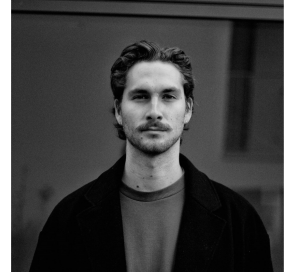
❱ Status: Machine Learning Student Consultant at KPMG, Currently studying triple Bachelor of Computer Science, Information System and Economics

❱ Skills: Python, Pytorch, Javascript, Typescript, Go, Java, Docker, Azure, Google Cloud, SQL

❱ Interests: Deep Lerning Theory and Practice, Computer Vision, NLP, Reinforcement Learning, Data Science, Backend Development, Frontend Development

❱ Activities: Basketball, Gym, Reading, Philosophy

❱❱❱ Summary

I am a Master's student in Artificial Intelligence at the University of Amsterdam in my first semester. Concurrently, I am doing an additional Bachelor's degree in Mathematical Software Development at the Fernuniversität Hagen to strengthen my academical math skills. I have completed two Bachelor's degrees, Information Systems and Economics. My passion is located in the field of AI, especially the theory and application of Deep Learning. I wrote two Bachelor's thesis. One is about efficient Transformer architectures in the domain of financial NLP and the other is about optimizing the locations of data centers in a global network using Graph Neural Networks and Reinforcement Learning. I am a very proficient self-learner and love to explore the world of AI and Deep Learning in depth. Currently, I am working as a machine learning and full stack developer student consultant at KPMG, where I solve clients' real-world problems with customized solutions. Concurrently, I also started the role of research assistant at the University of Passau for Self-Supervised-Learning and pretraining Large Language Models for financial NLP. Apart from that I love doing private projects to strengthen my skills in these fields. A detailed overview of them can be found on my *portfolio page*.

❱❱❱ Experience

03/24 - now	**Research Assistant**	University Passau

❱ Starting a position as a research assistant in the field of Machine Learning, especially Deep Learning with custom Transformer models, in financial NLP

05/2022 - now	**Machine Learning and Full-Stack Consultant**	KPMG Munich

❱ Developed and implemented bespoke machine learning models for client projects in computer vision and NLP, utilizing Python, PyTorch, and Azure. Key projects include object detection, segmentation, counting, and advanced language model applications.

❱ Engineered comprehensive front-end and back-end solutions, leveraging FastAPI and Express for server-side operations and React for client-side interfaces, ensuring seamless user experiences.

❱ Applied sophisticated statistical methods for time series analysis and forecasting, utilizing tools like Facebook Prophet and gradient boosting techniques, alongside clustering algorithms to analyze and interpret complex data sets.

❱ Specialized in deconstructing large-scale challenges into manageable sub-problems, adopting a systematic approach to problem-solving that facilitates efficient and effective solutions.

10/2021 - 04/2022	**Financial Mathematics Intern**	PwC Frankfurt am Main

❱ Applied advanced financial modelling techniques for the valuation of complex financial instruments including options, swaptions, rainbow options, and FX-swaps.

❱ Utilized a variety of statistical models to address market and liquidity risk modelling challenges, enhancing risk assessment accuracy.

❱ Gained proficiency in Bloomberg Terminal for extracting critical financial data, streamlining the data analysis process for valuation models.

❱ Developed a Python-based tool for the efficient large-scale valuation of mark-to-market assets, significantly improving operational efficiency.

06/2021 12/2021	-	**Data Analyst**	Fachinstitut für ausländisches Steuerrecht

❱ Researched in foreign law texts to identify relevant tax regulations and guidelines.

❱ Extraction and analysis of data found in foreign law texts to prepare it for internal use, ensuring compliance with international tax laws.

❱ Developed and maintained a database of foreign tax laws, facilitating easier access and analysis for ongoing and future projects.

02/2021 05/2021	-	**Business Consultant Intern**	FMC Passau

❱ Supported the foundation of a startup from scratch, contributing to strategic planning and operational setup.

❱ Facilitated client communications, understanding their needs and providing tailored advice to enhance their satisfaction and engagement.

❱ Conducted comprehensive market research to inform business strategies, identifying key trends and opportunities in the tax law sector.

❱ Provided data analytics support, applying quantitative analyses to guide decision-making and improve business processes.

❱❱❱ Education

2024-now	**Master of Science Artifical Intelligence**	University of Amsterdam

❱ Starting in September

2023 - now	**Bachelor of Science Mathematical Software Devlopment**	Fernuniversiät Hagen

❱ Additional Bachelor's degree in Computer Science with a focus on Mathematics to strengthen my knowledge and skills of academic maths to apply it to research in the field of Deep Learning

❱ Current Grade: 2.3

2022 - now	**Bachelor of Science Information Systems**	Universität Passau

❱ Focussing on Full-Stack development and Machine Learning

❱ Current Grade: 1.6

2020 - now	**Bachelor of Science Business Adminstration and Economics**	Universität Passau

❱ Thesis: Assessing Efficiency in Domain-Specific Transformer Models: Comparing, Pretraining, and Finetuning Small-Scale Transformer Models within Hardware Limitations for Financial NLP

❱ Focussing on Machine Learning, Statistics and Macroeconomics

❱ Current Grade: 1.5

❱❱❱ Extracurricular Activities

2017-2018	**Voluntary Social Year**	SV Germering

❱ Voluntary Social Year as a basketball coach and german teacher

❱ Coached multiple youth basketball team for ages ranging from 9 to 17

❱ Gave german lesson for refugees

❱ Organized and planned events for the children ,road trips to games on the weekends and home game days

2014-2018	**Youth Basketball Coach**	SV Germering

❱ Coached multiple youth basketball teams of different ages

❱ Supported and helped organizing training camps during holiday

❱ Reposible person for raod trips to away games and home games