Lukas Bierling · Data Scientist and Full Stack Developer · Munich Germany · **bierling.lukas@gmail.com** · +49/15233896998

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 Bachelor student of three independent degrees: Computer Science, Information Systems and Economics. My passion is located in the field of AI, especially the theory and application of Deep Learning. I wrote my Bachelor thesis about efficient Transformer architectures in the domain of financial NLP. I am 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 real-world problems of clients with customized solutions. Concurrently, I am also starting the role of research assistant at the University of Passau in the area of Deep Learning for financial NLP. Apart from that I love doing private projects to strengthen my skills in these fields. A detailled overview of them can be found on my *portfolio page*.

Experience

'24/03 - 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 - Present **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

2023 - now **Bachelor of Science Computer Science** Fernuniversiät Hagen

- Additional Bachelor degree in Computer Science with a focus on Mathematics to strenghten my knowledge and skills of academic maths to apply it to research in the field of Deep Learning
- Current Grade: 1.3

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