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Lukas Voss

Personal Statement

Quantitative researcher with a strong academic foundation in physics and applied econometrics, with recent experience at QRT delivering alpha through global Equity strategies and execution research in high-frequency arbitrage. Experienced in developing high-performance research infrastructure, including dashboards for BARRA factor attribution and scalable signal pipelines. Skilled in Python, SQL, and HPC, with a research background in AI-driven quantum computing. Demonstrated ability to apply scientific rigor to statistical modeling, with a track record of innovation across hedge fund, asset management, and deep tech environments.

Experience

02/25 – 08/25 **Qube Research and Technologies** *CTA/Macro Team, Singapore* – Quantitative Research Intern
- Conducted research and implemented mid- to low-frequency global Equity alpha strategies
- Latency-sensitive execution research analyzing market micro structure to optimize HFT arbitrage strategies
- Developed and deployed an internal BARRA factor risk/return dashboard, now adopted by 12+ researchers to enhance model attribution analysis and inform portfolio decisions

10/23 – 09/24 **Centre for Quantum Technologies** *National University of Singapore & Yale-NUS College* – Thesis Researcher
- Improved noise resilience of operations in quantum computers with Deep Reinforcement Learning (Pytorch)

06/22 – 08/22 **BlackRock** *Portfolio Analytics Group, Budapest, Hungary* – Summer Analyst
- Built an evaluation pipeline to validate a new multi-asset multi-factor financial model by comparing its outputs to a previous model, enhancing data collection efficiency by 60% through infrastructure improvements
- Developed risk dashboard to automatically flag data inconsistencies between firm-wide and client databases across portfolios, using Python & SQL for data validation and integrated solution into a nightly update routine

03/22 – 06/22 **Roland Berger** *Restructuring, Performance, Transformation & Transaction, Munich, Germany* – Graduate Intern
- Supported €100m+ chemicals sector sell-side mandate by managing the data room and preparing investor materials; Led competitive analysis for a software CDD, including expert interviews and market evaluation

10/21 – 12/21 **KPMG** *Financial Risk & Treasury, Munich, Germany* – Intern
- Built a PowerBI treasury dashboard integrating Python-based web scraping and NLP sentiment analysis; presented to 60+ professionals and demoed to clients, driving interest in data-driven risk solutions

Education (GPA out of 4.0)

09/24 – 01/25 **Chinese Language Scholar** *Shanghai Jiao Tong University, Shanghai, People's Republic of China*
- Full-time semester program for Chinese language and culture

09/22 – 06/23 **Exchange Year** *National Taiwan University, Taipei, Republic of China* – GPA: 4.0
- Focus: Quantum Computing, High-Performance Computing, Artificial Intelligence, Chinese Language

04/21 – 09/24 **MSc Physics and Management & MSc Physics (Double Degree)** *Ulm University, Germany* – GPA: 4.0, top of class
- Focus: Quantum Computing, Financial Modeling, Business Analytics (projects in R & Python)

10/17 – 03/21 **BSc Physics and Management** *Ulm University, Germany*
- Focus: Statistical Mechanics, Business Analytics; Thesis on NV Centre dynamics (Matlab; grade: 3.7)

Research & Technical Projects

01/24 – 06/24 **Multivariate Bicycle Codes** *Research Project with A*STAR Singapore & TII Abu Dhabi* – Journal publication link
- Introduced new class of Quantum Error Correction codes improving encoding efficiency (Python, HPC)

02/23 – 06/23 **Study on Deep Learning Training with NVIDIA GPU** *HPC & AI class final project at National Taiwan University*
- Benchmark data and model parallelization on a GPU against CPU-based approaches (Python, CUDA)

Leadership & Achievements

12/23 – 09/24 **Organizer** *Singapore Quantum Technologies Meetup Group*
- Organized regular sessions for quantum enthusiasts hosting speakers from industry & academia

09/22 – 06/23 **Baden-Württemberg Scholar & Regional Lead Taiwan** *Baden-Württemberg Foundation*
- Raised >25,000 EUR funding for my academic stays in Singapore, Taiwan and China

08/21 – today **President** *German Entrepreneur Prize for Students Alumni Association*
- Leading a team of four, overseeing the budget, planning networking and career development events

06/16 **2nd in Nationwide Business Plan Competition** *German Entrepreneur Prize for Students*

Skills & Interests

Languages	German (native), English (full working proficiency), Mandarin Chinese (est. HSK 4, equiv. B1-2), French (est. B1)
Coding	Python (proficient); R, Matlab, SQL (intermediate); Bash, Git (basic)
Technologies	MS Office suite, LaTeX, Cloud Computing (AWS, Google Cloud), HPC Clusters
Interests	Swimming, tennis, cooking haute-cuisine, language tandems