BENEDIKT J. KOCH

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Executive Summary

Ph.D. candidate in Statistics at Harvard University with focus in causal inference. Degrees from the University of Oxford (MSc in Statistical Science) and ETH Zurich (MSc in Applied Mathematics). Industry experience as a research intern at Netflix and full-time data scientist at QuantCo.

Education

PhD in Statistics, Harvard University — *Cambridge, MA*
Sep 2023 – Present
· Advisor: Prof. Kosuke Imai
· Research focus: causal inference; statistical decision-making, policy evaluation, and learning

MSc in Statistical Science, University of Oxford — *Oxford, UK*
Oct 2022 – Jun 2023
· GPA: 82.2/100 (Top 5%), Graduated with "Distinction"
· Awarded "Schools Prize" for academic excellence from St Edmund Hall College

MSc in Applied Mathematics, ETH Zurich — *Zurich, Switzerland*
Sep 2019 – Dec 2021
· GPA: 5.92/6.0 (Top 5%), Graduated with "Distinction"

BSc in Mathematics, University of Vienna — *Vienna, Austria*
Oct 2016 – Jul 2019
· GPA: 1.3/1.0 (Top 5%), Graduated with "Distinction"
· Awarded "Performance Scholarship" for academic excellence every year

Publications & Working Papers

· **Koch, B.**, & Imai, K., 2025. Statistical Decision Theory with Counterfactual Loss. *Working Paper.*

· Itkin, D., **Koch, B.**, Larsson, M., & Teichmann, J., 2022. Ergodic Robust Maximization of Asymptotic Growth Under Stochastic Volatility. *Finance and Stochastics.*

Work Experience

Experimentation & Causal Inference Intern, Netflix — *Los Gatos, CA*
Jun 2025 – Aug 2025
· Designed an instrumental variables framework using randomized assignments from multiple experiments to estimate the impact of promotions
· Developed targeted promotion policies via double robust machine learning, validated in a live A/B test
· Contributed to low-rank assortment methods for large-scale recommendation optimization

Data Scientist, QuantCo — *Berlin, Germany*
Sep 2021 – Sep 2022
· Designed and implemented a statistical health insurance pricing model using machine learning, ensuring fair prices for over 800,000 people
· Developed tools for actuaries to allocate €120 million in funds effectively
· Re-engineered the pricing process, achieving a 100-fold increase in speed and efficiency

Data Science & Engineering Intern, HSBC — *London, UK*
Jun 2021 – Aug 2021
· Proposed and implemented an improved credit risk-scoring model
· Designed a data aggregation method, increasing usable data by 12x
· Analyzed and transformed data using Apache Spark

Mathematical Analyst, Ministry of Defence — *Vienna, Austria*
Feb 2019
· Designed and implemented a trajectory prediction algorithm

Data Analyst, Aon Austria — *Vienna, Austria*
Aug 2018 – Sep 2018
· Conducted data and mathematical insurance analysis

Prospective Officer, Austrian Armed Forces — *Austria*
Sep 2015 – Present
· Military service to become an officer of the Austrian Reserve (Miliz)
· Trained and instructed groups of up to 120 conscripts
· Led a supply chain position, managing supplies for up to 700 personnel

Teaching Experience

Teaching Fellow, Harvard University *Cambridge, MA*
- STAT 210: Probability I
- STAT 234: Sequential Decision Making
- STAT 286: Causal Inference with Applications

Student Assistant, ETH Zurich *Zurich, Switzerland*
- Probability Theory and Statistics

Technical Skills

Programming Languages:	Python (advanced), R (intermediate)
Databases:	SQL (intermediate)
Languages:	German (native), English (fluent, TOEFL 114/120)