

BENEDIKT J. KOCH

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Executive Summary

Statistics Ph.D. candidate at Harvard University with a research focus on causal inference, particularly in statistical and algorithmic decision-making. Additional expertise in statistical machine learning and probability theory. Academic background includes degrees from the University of Oxford and ETH Zurich, complemented by industry experience in data science at QuantCo and HSBC. Incoming research intern at Netflix. Extensive military background with training in leadership and teamwork.

Education

- PhD in Statistics**, Harvard University *Cambridge, MA*
· Advisor: Prof. Kosuke Imai Sep 2023 – Present
· Research focus: Causal inference; statistical and algorithmic decision-making
- MSc in Statistical Science**, University of Oxford *Oxford, UK*
· GPA: 82.2/100 (Top 5%), Graduated with “Distinction” Oct 2022 – Jun 2023
· Awarded “Schools Prize” for academic excellence from St Edmund Hall College
- MSc in Applied Mathematics**, ETH Zurich *Zurich, Switzerland*
· GPA: 5.92/6.0 (Top 5%), Graduated with “Distinction” Sep 2019 – Dec 2021
- BSc in Mathematics**, University of Vienna *Vienna, Austria*
· GPA: 1.3/1.0 (Top 5%), Graduated with “Distinction” Oct 2016 – Jul 2019
· Awarded “Performance Scholarship” for academic excellence every year

Publications & Working Papers

- **Koch, B.**, & Imai, K., 2025. Statistical Decision Theory with Counterfactual Loss. *Working Paper*.
- **Koch, B.**, & Windmeijer, F., 2025. Identification in Proximal Causal Learning. *Working Paper*.
- Itkin, D., **Koch, B.**, Larsson, M., & Teichmann, J., 2022. Ergodic Robust Maximization of Asymptotic Growth Under Stochastic Volatility. *Finance and Stochastics* (under revision).

Work Experience

- Experimentation & Causal Inference Intern**, Netflix *Los Gatos, CA*
· Incoming Intern Jun 2025 – Aug 2025
- Data Scientist**, QuantCo *Berlin, Germany*
· Designed and implemented a statistical health insurance pricing model using machine learning, ensuring fair prices for over 800,000 people Sep 2021 – Sep 2022
· 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*
· Proposed and implemented an improved credit risk-scoring model Jun 2021 – Aug 2021
· Designed a data aggregation method, increasing usable data by 12x
· Analyzed and transformed data using Apache Spark
- Mathematical Analyst**, Ministry of Defence *Vienna, Austria*
· Designed and implemented a trajectory prediction algorithm Feb 2019
- Data Analyst**, Aon Austria *Vienna, Austria*
· Conducted data and mathematical insurance analysis Aug 2018 – Sep 2018
- Prospective Officer**, Austrian Armed Forces *Austria*
· Military service to become an officer of the Austrian Miliz (active reserve) Sep 2015 – Present
· Trained and instructed groups of up to 120 conscripts as a Recruit Instructor (Sergeant)
· 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)