

Education

PRINCETON UNIVERSITY	Princeton, USA
PhD (MA awarded Sept. 2023) Operations Research and Financial Engineering (ORFE)	Sept. 2021 – Present
Advisors: Brandon Stewart & Ronnie Sircar; Focus: ML and applications in social sciences	
• Current research: Text optimization and causal inference using large language models	
- Pending patent application for <i>AutoPersuade</i> text optimization framework	
• Teaching Assistant experience:	
- ORF499 Senior Thesis (Spring 2025)	
- ORF498 Senior Independent Research Foundations (Fall 2024)	
- ORF405 Regression and Applied Time Series (Fall of 2022 and 2023)	
- ORF350 Analysis of Big Data (Spring 2023)	
- ORF245 Fundamentals of Statistics (Spring 2024)	
UNIVERSITY OF CAMBRIDGE	Cambridge, UK
MPhil Economics – Distinction (Highest possible merit, 75 Avg.)	Sept. 2019 – Aug. 2020
Thesis: <i>Exploring Cyclical Predictability of Sector-Specific Equity Premia</i> (80, ranked 2 nd)	
• St Catharine’s College Distinction Prize	
UNIVERSITY OF EDINBURGH	Edinburgh, UK
MA Joint Honours Economics & Mathematics – First-Class (Highest possible merit, 82 Avg.)	Sept. 2015 – June 2019
Thesis: <i>On the Limitations of Cryptocurrencies</i> (82, ranked 2 nd)	
• School of Economics Prize – awarded for top three dissertations	
• Lanfine Bursary – awarded for top second-year economics grade among over 250 students	
• Excellence Award – awarded for top first-year finance grade among over 150 students	

Experience

META	Menlo Park, USA
Research Scientist Intern, Graph Science and Statistics Research	May – Aug. 2025
BALYASNY ASSET MANAGEMENT	New York City, USA
Summer Associate – Quantitative Researcher	June – Aug. 2024
• Derived tradable signals from ~500k unstructured text documents on US equity	
• Explored signal dynamics and performance as well as signal synthesis with complementary data	
THE BOSTON CONSULTING GROUP	Frankfurt, Germany
Associate Consultant	Sept. 2020 – Aug. 2021
• Developed a strategic risk model review for German major bank in light of the Covid pandemic	
• Developed and published foundational report on the economic relevance of biodiversity	
UNIVERSITY OF EDINBURGH	Edinburgh, UK
Research Assistant of Professor Ludo Visschers	June – Aug. 2017
• Reviewed literature on auction theory and efficient procurement practices	
• Analysed current procurement practices of NHS Scotland	
GERMAN CENTRAL BANK	Frankfurt, Germany
Statistics Department – Summer Analyst	June – July 2016
• Examined and evaluated data on exchange rate policies of IMF members	
• Digitalised and structured data for publication	

Skills

Technical:	• Intermediate Python experience in Machine Learning (PyTorch, TensorFlow, Scikit-Learn) Natural Language Processing (Hugging Face models, different APIs) Convex Optimization (CVXPY)
	• Intermediate R experience in time series & panel data analysis, causal inference, and back testing
	• Intermediate Linux Command Line proficiency, advanced Microsoft Office, basic SQL
Languages:	• Fluent in English and German; Advanced Latin; Basic Mandarin

Additional Fellowships, Grants, and Awards

PRINCETON UNIVERSITY	Sept. 2021 – Present
• First Year Fellowship in Natural Sciences and Engineering (\$93k)	
• New Ideas in Social Sciences Grant (\$50k, with Brandon Stewart)	
• Graduate Student Research Grant for Mobilizing Development Finance in Fragile States (\$5.7k)	

- Data Driven Social Science Fellow (Spring 2023 – Spring 2025; \$4.8k)
- ORFE & School of Engineering and Applied Sciences Travel Funding (\$1.6k)

GERMAN ACADEMIC SCHOLARSHIP FOUNDATION

Oct. 2019 – July 2020

- Academic excellence scholarship awarded from Germany's oldest scholarship foundation (\$15k)

SCHONFELD STRATEGIC ADVISORS

April 2024

- Achieved 3rd place at the Early Engagement (SEE) PhD Datathon

Research

AutoPersuade: A Framework for Evaluating and Explaining Persuasive Arguments

With Musashi Hinck, Justin Grimmer, and Brandon M. Stewart

EMNLP 2024, Main Conference

Estimating the Collapse of Afghanistan's Economy Using Nightlights Data

With Ethan B. Kapstein and Ronnie Sircar

PLOS ONE 19(12)

Exploring Cyclical Predictability of Sector-Specific Equity Premia

Under supervision of Mark Salmon

Master Thesis

On the Limitations of Cryptocurrencies

Under supervision of Andrew Clausen

Bachelor Thesis