

Andreas Haupt | Curriculum Vitæ

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Education

Massachusetts Institute of Technology

Cambridge, MA

Ph.D. in Social and Engineering Systems

2019–present

Classes taken in first semester:

- Microeconomic Theory I + II (Parag Pathak, Glenn Ellison)
- Economics of Information and Technology (Erik Brynjolfsson)
- Simplicity and Complexity in Economics (Shengwu Li, Mohammad Akbarpour)

Goethe-Universität

Frankfurt, Germany

B.Sc. in Computer Science

2019

Specialization: Probabilistic Graphical Models, Machine Learning

Thesis: Multi-Agent Influence Diagrams and Commitment

Thesis Supervisor: Nils Bertschinger

Rheinische Friedrich-Wilhelms Universität

Bonn, Germany

M.Sc. in Economics

2018

Specialization: Mechanism Design

Thesis: Voting with Limited Communication

Thesis Supervisor: Benny Moldovanu

Rheinische Friedrich-Wilhelms Universität

Bonn, Germany

M.Sc. in Mathematics

2017

Specialization: Random Graphs

Thesis: A Data Application of Graphon Theory

Thesis Supervisor: Ngoc Mai Tran

École polytechnique fédérale de Lausanne

Lausanne, Switzerland

Graduate Exchange Studies in Applied Mathematics

2015

Rheinische Friedrich-Wilhelms Universität

Bonn, Germany

B.Sc. in Mathematics

2014

Relevant Coursework: Mechanism Design and Social Choice, Topics on Efficiency in Voting, Complexity and Simplicity in Economics, Econometrics (Ph.D.), Combinatorics, Graphs and Matroids, Approximation Algorithms

Fellowships: Ev. Studienwerk Full Scholarship 2012-17, MIT Presidential Fellowship 2019-20

GPA Economics (Graduate): 3.74/4.00 (distinction) **GPA Mathematics (Graduate):** 3.78/4.00

Full-time Professional Experience

Teach First Deutschland

Groß-Gerau, Germany

Fellow at Berufliche Schulen Groß-Gerau, teachfirst.de

2017-2019

- Taught 20 lessons/week in mathematics, German and CS and coached students on their goals for vocational education
- Spoke on digital education in a state teacher training center, 3x in a media agency and for adult education professionals
- Founded project “Deine Bildung – Dein Film” for >85 students and >20 student-produced educational videos

Office of Member of German National Parliament

Berlin, Germany

Research Assistant in the office of Marian Wendt, marian-wendt.de

Spring 2017

- Researched and wrote summaries on digital and homeland policy issues to support committee work (digital, NSA)
- Built a web scraper for the download of relevant legislation, saving 20min/week for the other members of the office

Other Research Experiences

Rheinische Friedrich-Wilhelms-Universität

Student in Graduate Course, Prof. Benny Moldovanu

Bonn, Germany

Spring 2017

- considerably shortened proofs of polyhedral characterisations of the Pareto frontier for ε -BIC mechanisms by S. Seuken

Rheinische Friedrich-Wilhelms-Universität

Student in Graduate Course, Prof. Stephan Laueremann

Bonn, Germany

Summer 2016

- studied stationary bargaining on networks in a model featuring bargaining power for the shorter side(s) of the market

École Polytechnique Fédérale de Lausanne

Research Assistant, Prof. Friedrich Eisenbrand

Lausanne, Switzerland

Summer 2015

- studied approximation ratios of greedy algorithms for maximising functions quantifying both relevance and diversity as a sum of a submodular function a pairwise differences function

Volunteering

Data Science for a Social Good

Data Ambassador for Start with a Friend, dssg-berlin.org, start-with-a-friend.de

Berlin, Germany

2018-2019

- Anonymized data and communicated NGO's data challenges to 18 data scientists at hackathon
- Compiled report on data scientists' findings and helped NGO's CTO to design database interface facilitating automation

Bonn Journal of Economics

Editor, bje.uni-bonn.de

Bonn, Germany

2017

- Interacted with authors for student journal and prepared the print of two editions of the journal
- Constructed a new author \LaTeX template to accelerate the editorial process

MLworkshopVilligst

Organiser, mlworkshopvilligst.wordpress.com

Tübingen, Germany

2017

- Organised interdisciplinary machine learning workshop with speakers from the MPI for Intelligent Systems and Columbia
- Guided all participants in their search for a presentation topic and on how to write-up their talk as a blog post

Leadership

National Model United Nations

Head Delegate, nmun.org

New York

2017-2019

- Planned academic preparation (2 weekends) and logistics for 20-person delegation to National Model United Nations
- Won with the delegation an Honorable Mention Delegation award

Bildungsfestival

Scrum Master, bildungsfestival.org

Essen

2018-2019

- Set up SCRUM in 20+ volunteer organisation for networking event for 100+ students from underserved communities
- Oversee data management of the NGO and ensure GDPR compliance

Skills

General: Mathematical Maturity • Scientific Writing • Data Exploration • Instruction Design • Presenting

Tools: python • pandas • sklearn • keras • C++ • SQL • git • \LaTeX • Jekyll • Sketch • Adobe InDesign

Coursera Specializations: Deep Learning (by Andrew Ng), Probabilistic Graphical Models I (by Daphne Koller)

Languages: English (C2) • German (C2) • French (B2)

References

- [1] Andreas Haupt et al. "Classification on Large Networks: A Quantitative Bound via Motifs and Graphons". In: *CoRR* abs/1710.08878 (2017). arXiv: 1710.08878. URL: <http://arxiv.org/abs/1710.08878>.