# Andreas Haupt

# Curriculum Vitæ

#### Education

10/15-08/18 M.Sc. Economics (excellent), University of Bonn, GPA 3.74.

Concentrations Microeconomics, Mechanism Design Thesis "Voting with Restricted Communication" Supervisor Dr. rer. pol. Benny Moldovanu

10/15-06/17 M.Sc. Mathematics, University of Bonn, GPA 3.79.

**Concentrations** Discrete Random Structures, Approximation Algorithms

Thesis "A data Application of Graphon Theory"

Supervisor Ngoc Mai Tran, PhD

10/12-07/15 **B.Sc. Mathematics**, *University of Bonn*.

Concentration Discrete and Combinatorial Optimisation

## Professional Experiences

#### Professional

08/17-06/19 **Teach First Deutschland Fellow**, *Vocational School*, Groß-Gerau.

**Courses taught** Mathematics, CS essentials (scratch, MIT Applnventor), Arduino **Training** Project management, instruction design, diversity, digital education

02/17-03/17 Intern Scientific Assistance, Member of German Parliament M. Wendt, Berlin.

- o Conduct research on policy questions for homeland and digital policy matters
- o Build a web scraper that saves 20min of download work each week

#### Academic

02/17-10/17 **Research Assistant**, Chair of Stochastic Analysis, University of Bonn.

- o LATEX and proof-read 2 research articles
- o Unify templates for several lecture notes (1200+ pages)

07/15-08/15 **Research Assistant**, *Chair of Discrete Optimisation*, *EPFL*, Lausanne. finish research semester project on maximisation of max-sum diversification.

#### Honors

03/13-07/17 **Full scholarship**, *Evangelisches Studienwerk*, Schwerte, 1:100-competitive. Evangelisches Studienwerk is one of 13 foundations giving academic state scholarships.

08/18-11/18 Infrastructure Grant (€ 2000), State of Hesse, Wiesbaden. Install an Arduino Lab at Vocational School Groß-Gerau

10/2018 Win 2nd prize (€1500) at Data Hackathon for NLP news relevance classification

# Projects

- 11/18-06/19 **Data Ambassador**, *Data Science for A Social Good*, Berlin, dssg-berlin.org.
  - Improve and automise refugee-citizen matching algorithm for NGO "Start with a Friend"
- 10/17-06/19 **Scrum Master**, *Bildungsfestival*, Essen, bildungsfestival.org.
  - $\circ$  Introduce SCRUM to 20+ volunteer organisation for 100+ student networking event
- 01/18-06/19 **Strategy**, *REDE.online*, Frankfurt, re-de.online.
  - o Create moderation concept and mockups for regional data/chat app
- 02/17-11/17 **Organiser**, MLworkshopVilligst, Tübingen, mlworkshopvilligst.wordpress.com.
  - o Organise machine learning workshop with 4 speakers from MPI-IS, 1 from Columbia
  - Help participants find a topic for 12 contributed talks and write blog entries
- 02/16-02/17 **Editor**, Bonn Journal of Economics, Bonn, bje.uni-bonn.de.
  - o Select 8 extended abstracts to appear in student journal
  - o Create new LATEX template still in use now

#### Presentations

- 04/18 "Random Structures in Neuroscience and Biology", LMU, Munich.
- 01/19 **Pedagogic Day**, *Study seminar for teacher candidates*, Darmstadt. Give workshop on learning videos in the classroom to Teacher candidate supervisors.
- 04/19 **"Digital Participation Tools"**, *Sustainability Education Agency*, Recklinghausen. Present the use of online tools for seminar conception (Plickers, Polleverywhere + 5)
- 04/18 —, Ev. Akademie Villigst, Schwerte.
- 10/17 "Intelligent Robots Simulation of Life?", Ev. Akademie Villigst, Schwerte. Give introduction to supervised learning and collaborative filtering for general audience

#### Skills

Tools pandas  $\bullet$  sklearn  $\bullet$  keras  $\bullet$  C++  $\bullet$  SQL  $\bullet$  git  $\bullet$  Languages German, English, French

### Certifications

Coursera Machine Learning (A. Ng, 09/17, 100%), Deep Learning Specialisation (A. Ng, 10/17-02/18, 100%), Neural Networks for Machine Learning (G. Hinton, 06/18, 99%), Probabilistic Graphical Models: Representation (02/18, 96%)

Fobizz App Development in Class • Teaching Programming using Scratch • Twitter Simply (German) Explained • Learning Videos in Class • Using Greenscreen in Class

#### **Publications**

A. Haupt. Communication-restricted voting. Bonn Journal of Economics, 2019.

A. Haupt, M. Khatami, T. Schultz, and N. Tran. Classification on large networks: A quantitative bound via motifs and graphons. *arXiv preprint 1710.08878*, 2017.