Roman Hahn | Curriculum Vitae

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Date and Place of Birth: 16th January 1992, Singen, Germany

🎓 Education

Bocconi University   **Milan, Italy**

Ph.D. in Statistics   *Sep. 2017 – Present*

My supervisor is professor Emanuele Borgonovo. My current research interests lie in Machine Learning and Sensitivity Analysis, with a particular focus on explainability of black-box models.

University of Pavia / University of Hohenheim   **Pavia, Italy / Stuttgart, Germany**

Master of Economics/ Double M.Sc. Degree Program   *Oct. 2014 – Nov. 2016*

Major: Econometrics/Statistics and Finance; Average grade: 1.0 (approximate equivalent to a 4.0 GPA)

Master thesis: *Bayesian non-parametric models for species sampling problems*. Thesis supervisor: Prof. Antonio Lijoi (Bocconi University)

University of Hohenheim   **Stuttgart, Germany**

B.Sc. in Economics   *Oct. 2011 – Oct. 2014*

Major: Econometrics and Finance; Average grade: 1.6 (approximate equivalent to a 3.4 GPA).

📑 Academic Experience

Working Papers

"Computing the mean dimension of neural networks", joint work with E. Borgonovo and C. Feinauer. (work in progress)

"Do neural networks see statistical dependence?", joint work with E. Borgonovo, C. Feinauer and E. Plischke. (work in progress)

"Comparing Neural Networks with Sensitivity Analysis", joint work with E. Borgonovo and C. Feinauer. (work in progress)

"Understanding Deep Networks Hyperparameters Space through Design of Experiments", joint work with E. Borgonovo, C. Feinauer and E. Plischke. (work in progress)

Teaching/Research Activities

Bocconi University   **Milan, Italy**

Teaching Assistant: "Principles of Business Analytics"   *A.y. 2019/2020 and 2020/2021*

Tutoring (proposing and solving exercises) for master degrees in *Management* and *International Management*.

Bocconi University   **Milan, Italy**

Teaching Assistant: "Statistics"   *A.y. 2018/2019*

Tutoring (proposing and solving exercises & scoring exams) for bachelor degrees in *Economics and Management*, *Economics and Management for Arts, Culture and Communication* and *Economics, Management and Computer Science*.

Bocconi University   **Milan, Italy**

Teaching Assistant: "Applied Stochastic Processes"   *A.y. 2018/2019 and 2019/2020*

Tutoring (proposing and solving exercises) for all bachelor degrees at Bocconi University.

University of Hohenheim   **Stuttgart, Germany**
Teaching Assistant: "Macroeconomics"   *A.y. 2014/2015*
Tutoring (proposing and solving exercises & scoring exams) for bachelor degree in *Economics*.

University of Hohenheim   **Stuttgart, Germany**
Research Assistant: "Econometrics"   *April - July 2015*
Supporting the econometrics group in their research, mainly data analysis.

Talks, conferences and workshops..

9th International Conference on Sensitivity Analysis of Model Output   **Barcelona, Spain**
SAMO 2019   *Oct. 2019*

Data Research Camp   **Venice, Italy**
Workshop   *July 2019*
It was a 3-day meeting where small research groups of young scholars, advised by senior researchers, were asked to develop innovative methods and models to analyze a common dataset. I worked in a group supervised by professor Simone Vantini from Politecnico di Milano.

✹ Funded Research Projects

Campari Group   **Milan, Italy**
Research Project   *Jan. 2020 - May 2020*
EBIT Sensitivity and Forecasting using Dynamic Linear Models

📉 Industry Experience

Horváth & Partners, Steeringlab   **Munich, Germany**
Data Scientist, Consultant   *Dec. 2016 - Aug. 2017*
- Big Data Business Analytics
- Projects:
    - sales forecast for worldwide leading pharma company
    - consumption forecast for German energy company
    - transport optimization for a European railway company

Landesbank Baden-Württemberg   **Stuttgart, Germany**
Intern, Credit Research   *Feb. - May 2014*
- Supporting department leader in company and industry specific research
- Assisting in publishing weekly Information for investors
- Analyzing financial coefficients

🖥 Programming Skills

Advanced: R, LaTeX, Python, Pytorch

Intermediate: Linux, Stata, Matlab

Basic: SQL, Julia

🔊 Outreach and Scholarships

DeepLearn   **Warsaw, Poland**
Summer School   *July 2019*

Machine Learning Crash Course   **Genoa, Italy**
Summer School   *June 2019*

Bocconi University PhD BEAT program   **Milan, Italy**
Bocconi Excellence in Advanced Teaching program   *Oct. - Dec. 2018*
Aim of the program is to support PhD students in exploring new pedagogical methodologies and teaching practices as well as to help them in personal development and to provide enhanced learning experiences in the classrooms.

Bocconi Summer School in Advanced Statistics and Probability   **Como, Italy**
Summer School (Topic: Graphical Models)   *July 2018*

Bocconi University PhD Scholarship   **Milan, Italy**
Scholarship   *Sep. 2017 - Present*

Prize for the best Master Degree (University of Hohenheim)   **Stuttgart, Germany**
Award   *July 2017*

Prize for the best Master Degree (University of Pavia)   **Pavia, Italy**
Award   *March 2017*

Prize for the best Double Degree (HERMES)   **Budapest, Hungary**
Award   *June 2018*
Awarded for the best master degree of the HERMES double degree network during a ceremony in Budapest.

Erasmus+ Scholarship   **Pavia, Italy**
Scholarship   *Sep. 2015 - Sep. 2016*
Received by the Erasmus+ program to spend the 2nd year of the Master's degree in Pavia.

CFA (Chartered Financial Analyst) Institute Competition   **Pavia, Italy**
Competition   *2016*
Elected team member of Pavia University for the CFA institute competition.

Deutschlandstipendium   **Stuttgart, Germany**
Scholarship   *Sep. 2015 - Sep. 2016*
Scholarship for outstanding students provided by federal government and private sponsors.

Sport Instructor, Football   **Stuttgart, Germany**
Extracurricular Activities   *2015*
Organizing the weekly football training at *University of Hohenheim* as a 'sportsteam member'.

3rd Prize for Bachelor Degree   **Stuttgart, Germany**
Award   *Oct. 2014*

Dean's List member of University of Hohenheim   **Stuttgart, Germany**
Award   *2012 - 2016*
The Dean's List contains the best 3% students of the faculty.

🌐 Language skills

German: Mothertongue

English: Excellent command

Italian: Fluent

French: Basic