SEBASTIAN HEINRICH

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17. July 1987
Swiss



EDUCATION

01.2018 - ongoing — **PhD in Economics, ETH Zürich**
- Work on dissertation projects on a wide range of topics including technology diffusion artificial intelligence, impact of natural disasters, and the scientific publication system.
- Enrolment in courses within the MTEC-Doctoral Program, mostly focussing on econometrics, statistics, machine learning, social networks and game theory.

09.2016 - 12.2017 — **Master in Sociology, University of Bern**
- Focus on data analysis, statistics and simulation.
- Master's thesis on the determinants of countries' innovation capacities.

09.2012 - 07.2014 — **Bachelor in the Social Sciences, University of Zürich**
- Major in mass communication and media. Minors in political science and psychology.

KEY COURSEWORD

Summer 2019 — **Identification and Causal Inference, ETH Zurich**
- Thought by Stefan Pichler and Michael Sigenthaler

Summer 2019 — **Summer School on Data Science, University of Zurich**
- Thought by Aniko Hannak, Mark Fishel, Ciro Cattuto and Miriah Meyer

Summer 2019 — **Programming Practices for Research in Economics, University of Zurich**
- Thought by Lachlan Deer

Winter 2018 — **Statistical Learning, University of Zurich**
- Thought by Christine De Mol

Summer 2018 — **Econometrics of Big Data, GSERM at University of St. Gallen**
- Thought by Victor Chernozhukov and Christian Hansen

WORK EXPERIENCE

01.2018 - ongoing — **Researcher, Swiss Economic Institute, ETH Zürich**
- Economic research within the innovation division, among others, for the European Patent Office (Report) and Swiss Re (Report).
- Compiling an extensive dataset with patents classified into categories of product and process inventions (Harvard Dataverse) for the European Patent Office.

01.2017 - 07.2017 — **Student Assistant, Swiss Economic Institute, ETH Zürich**

01.2017 – 12.2017 — **Student Assistant, University of Applied Sciences Luzern**

01.2013 - 12.2017 — **Web developer, Freelance Work and Temporary Employment**

INTEREST IN ARTIFICIAL INTELLIGENCE

It seems very difficult to summarize my interest in AI. At hand, we have a technology developed with the goal to match human intelligence and beyond. This technology is based on a combination of some of the most interesting findings from major scientific disciplines. The technology further has the potential to restructure societies and economies in a most profound way. Therefore, the question to me seems rather, how could I not be interested in this topic.

My interest in AI is twofold. First, I am highly interested in AI technologies as a driving force for social and economic change. Second, I am fascinated with the new possibilities in economics and the wider social sciences provided by machine and deep learning techniques. I think that recent techniques in natural language processing provide a vast opportunity to do empirical research by measuring concepts previously impossible.

Currently there is a shortage of data available to study the economics of AI. Therefore, I explore the potential of unconventional data sources in a current project. The project suggests a series of different data sources in the context of AI and economics, shows ways of extracting and processing those sources, provides a comparison of the different sources to evaluate their validity and applies them to the topic of technological diffusion. The data used in the paper stem from various sources for example online platforms (e.g. code repositories, question answer sites), scientific articles, business registries, patents or company websites. It would be a great opportunity to participate at the workshop and the conference to discuss the most recent research on the topic of AI and Economics as well as to get feedback on my own research. I also applied for the conference with the described paper.