

Sebastian Steffen
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EDUCATION

- MIT Sloan**, Cambridge, MA 2016 – Present
- Ph.D. in Management
 - Focus area: Information and Technology
 - Advisor: Erik Brynjolfsson
 - Course work: Machine Learning, NLP, Econometrics, Micro Economics, Networks, Labor Economics
- Princeton University**, Princeton, NJ 2009 – 2013
- Bachelor of Arts in Economics, *magna cum laude*, 2013
 - Departmental GPA: 3.83, Overall GPA: 3.61

WORK EXPERIENCE

- LinkedIn – Economic Graph Group**, Data Science Intern June 2018 – Present
- Analyze internal experiments on wage transparency and its effect on job search behavior.
 - Create IT proxy metrics from firms' human capital assets.
 - Wrote Pig and Python scripts to create human capital dataset and analyze
- Analytics Lab – Initiative for Digital Economy (IDE)**, Teaching Assistant June 2017 – December 2017
- Engaged with businesses to select and vet project proposals for ML Analytics class. Mentored MBA students on business project by giving guidance on data wrangling, inference, analysis, and presentation.
- Microsoft Research New England**, Research Assistant May 2014 – June 2016
- Researched changes in the volume and content of online news consumption after the shutdown of a major news aggregator (joint project with S. Athey, M. Mobius, and J. Pal (2017)). Wrote C# and Scope code to identify and scrape news site articles. Used explicit semantic analysis and Louvain community detection to match articles to Wikipedia topics.

RESEARCH

- Occupational Drift: An NLP Application to Job Postings and Tasks** April 2018 – Present
- I create an embedding space of millions of online job postings from their NLP-extracted text features as well job-level O*Net and automation variables to study the evolution of occupations over time as well as their similarity.
 - I fit several models, including neural nets, to predict wages. I plan to analyze the occupations' past drift patterns to predict how future wages may be affected by deeper automation and IT penetration.
- Stepping Stone Jobs and Skill Diffusion** January 2018 – Present
- Using LinkedIn data I build a panel career dataset to identify stepping stone jobs and career-beneficial skills. Does the diffusion and network saturation of skills affect their marketability? How do the transition probabilities change with the economy, and the progression of automation and time?

SKILLS

- **Programming Languages:** R, Python, STATA, C#, Matlab, Scope, Pig, Java, VBA, Mathematica
- **Software:** Microsoft Office, LaTeX, Gephi, Acrobat Pro, ArcGIS, Powershell, Azure
- **Languages:** German (native), English (fluent), French (advanced), Chinese (Beginner)
- **Other:** Running, Squash, Guitar, Crafting, Cooking, Reading, Magic the Gathering

AWARDS AND ASSOCIATIONS

- Census Special Sworn Status.
- J-WEL Workplace Learning Grant. Project Title: Analyzing Skill Acquisition and Career Trajectories Using LinkedIn Data