

MARTIN SAVESKI

MIT Media Lab
75 Amherst Street
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Research Interests

Area Computational Social Science
Methods Social Network Analysis, Causal inference, Experimental Design, Machine Learning
Applications Information Diffusion, Conversation Analysis, Political Polarization

Education

- 2015— Ph.D., Media Arts and Sciences
Massachusetts Institute of Technology
- *Advisor:* Deb Roy
 - *Thesis:* Polarization and Toxicity in Political Discourse Online
 - *Thesis committee:* Deb Roy, Dean Eckles, Lada Adamic
- 2014—2015 M.Sc., Media Arts and Sciences, Fast-tracked
Massachusetts Institute of Technology
- 2011—2013 M.Sc., Data Mining and Knowledge Management, Honors
University Pierre and Marie Curie & Polytechnic University of Catalonia
- *Thesis:* Cold Start Recommendations: A Non-negative Matrix Factorization Approach
- 2007—2010 B.Sc., Computing Science, First Class Honors
Staffordshire University
- *Thesis:* Automatic Wordnet Construction using Machine Translation and Language Modeling

Research Experience

- Jun—Aug 2019 *Facebook*
Core Data Science, Menlo Park (Internship)
- Identified and characterized users who bring people together through their posts.
- Jun—Aug 2016 *LinkedIn*
Experimentation Team, Mountain View (Internship)
- Developed experimental designs for detecting network interference in randomized experiments.
- Jun—Aug 2014 *Amazon*
Machine Learning Team, Berlin (Internship)
- Worked on algorithms for sparsity-inducing learning-to-rank models.
- Feb—Aug 2013 *Yahoo! Labs*
Social Media Engagement Group, Barcelona (Internship)
- Designed algorithms for cold-start recommendations.
- Jun—Aug 2012 *Laboratory of Computer Sciences, Paris 6*
Machine Learning and Information Retrieval Research Team, Paris (Internship)
- Developed methods for blending generative and discriminative models for semi-supervised learning.
- Jan—Aug 2011 *Jožef Stefan Institute*
Department of Knowledge Technologies, Ljubljana
- Built a system for sentiment analysis of financial tweets.

Publications

Citation statistics on my [Google Scholar profile](#)

* indicates equal contribution

1. Testing for Arbitrary Interference on Experimentation Platforms [\[pdf\]](#)
Jean Pouget-Abadie, Guillaume Saint-Jacques*, **Martin Saveski***, Weitao Duan, Souvik Ghosh, Ya Xu, Edo Airolidi
Biometrika. 2019.
2. Observational Causal Inference Using Network Information
Yan Leng, **Martin Saveski**, Alex 'Sandy' Pentland, Dean Eckles
NeurIPS'19, Workshop on Graph Representation Learning. 2019.
3. Me, My Echo Chamber, and I: Introspection on Social Media Polarization [\[pdf\]](#)
Nabeel Gillani*, Ann Yuan*, **Martin Saveski**, Soroush Vosoughi, Deb Roy
WWW'18, International Conference on the World Wide Web. 2018. (*Honorable mention*)
4. Detecting Network Effects: Randomizing Over Randomized Experiments [\[pdf\]](#)
Martin Saveski*, Jean Pouget-Abadie*, Guillaume Saint-Jacques, Weitao Duan, Souvik Ghosh, Ya Xu, Edo Airolidi
KDD'17: International Conference on Knowledge Discovery and Data Mining. 2017. (*Research Track*)
5. Topic Modeling in Twitter: Aggregating Tweets by Conversations [\[pdf\]](#)
David Alvarez-Melis*, **Martin Saveski***
ICWSM'16: International AAAI Conference on Web and Social Media. 2016. (*Short Paper*)
6. Tracking the Yak: An Empirical Study of Yik Yak [\[pdf\]](#)
Martin Saveski, Sophie Chou, Deb Roy
ICWSM'16: International AAAI Conference on Web and Social Media. 2016. (*Short Paper*)
7. Human Atlas: A Tool for Mapping Social Networks [\[pdf\]](#)
Martin Saveski, Eric Chu, Soroush Vosoughi, Deb Roy
WWW'16: International Conference on the World Wide Web. 2016. (*Demo*)
8. One-Pass Ranking Models for Low-Latency Product Recommendations [\[pdf\]](#)
Antonino Freno, **Martin Saveski**, Rodolphe Jenatton, Cédric Archambeau
KDD'15: International Conference on Knowledge Discovery and Data Mining. 2015. (*Industry Track*)
9. Item Cold-Start Recommendations: Learning Local Collective Embeddings [\[pdf\]](#)
Martin Saveski, Amin Mantrach
RecSys'14, ACM Conference Series on Recommender Systems. 2014.
10. The Geography of Online News Engagement [\[pdf\]](#)
Martin Saveski, Daniele Quercia, Amin Mantrach
Socinfo'14: International Conference on Social Informatics. 2014.
11. Joint Semi-supervised Learning of Hidden Conditional Random Fields and Hidden Markov Models [\[pdf\]](#)
Yann Soullard, **Martin Saveski**, Thierry Artières
Pattern Recognition Letters. 2013.
12. Web Services for Stream Mining: A Stream-Based Active Learning Use Case [\[pdf\]](#)
Martin Saveski, Miha Grčar
ECML'11, Workshop on Planning to Learn and Service-Oriented Knowledge Discovery. 2011.
13. Automatic Construction of Wordnets by Using Machine Translation and Language Modeling [\[pdf\]](#)
Martin Saveski, Igor Trajkovski
In Proceedings of Seventh Language Technologies Conference. 2010.

Professional Service

- 2018—2019 *Program Committee*, ICWSM: AAAI International Conference on Web and Social Media
- 2017—2018 *Reviewer*, CSCW: Conference on Computer-Supported Cooperative Work and Social Computing
- 2018 *Reviewer*, Journal of the Royal Statistical Society, Series A (Statistics in Society)
- 2016 *Program Committee*, Bloomberg Data For Good Exchange
- 2016 *Reviewer*, ACM Transactions on Information Systems
- 2016 *Application Reviewer*, MIT Summer Research Program
- 2015 *Reviewer*, Elsevier Computer Communications, Special Issue on Online Social Networks
- 2013 *Reviewer*, RecSys: ACM Conference on Recommender systems

Awards

- 2019 *Best Reviewer*, ICWSM: AAAI International Conference on Web and Social Media
- 2018 *Paper Honorable Mention*, WWW: ACM International Conference on the World Wide Web
- 2011—2013 *Scholarship*, European Union full scholarship for a two-year Master's Degree
- 2008—2010 *Scholarship*, Macedonian government scholarship for students with advanced achievements

Mentorship

- Jun'18—May'19 Sanzeed Anwar
MIT Undergraduate Research Opportunities Program
- Developed algorithms for balanced influence maximization in the presence of homophily.
- Feb—Dec 2016 Dominik Martinez
MIT Undergraduate Research Opportunities Program
- Worked on a tool for efficiently mapping social networks.
- Jun—Aug 2015 Hayley Hinsberger
MIT Summer Research Program
- Studied the relationship between household characteristics and diffusion of microfinance using data from Banerjee et al. (Science, 2013).

Teaching Experience

- Fall 2016 *Machine Learning, Society & Autonomy*, MIT
Teaching Assistant
- Spring 2014 *Introduction to Social Machines: Building Systems Solutions for Social Change*, MIT
Teaching Assistant

Updated January 20, 2020 ■