

Martin Saveski

msaveski [at] stanford.edu | martinsaveski.com

Education

- 09/2020—08/2023 **Postdoctoral Scholar, Stanford University**
Management Science & Engineering
• *Mentor:* Johan Ugander
- 09/2014—08/2020 **Ph.D., Massachusetts Institute of Technology**
Media Arts and Sciences
• *Thesis:* Polarization and Toxicity in Political Discourse Online
• *Committee:* Deb Roy (advisor), Lada Adamic, Dean Eckles
- 09/2011—09/2013 **M.Sc., University Pierre and Marie Curie & Polytechnic University of Catalonia**
Data Mining and Knowledge Management
• *Thesis:* Cold Start Recommendations: A Non-negative Matrix Factorization Approach
- 09/2007—06/2010 **B.Sc., Staffordshire University**
Computing Science, First Class Honors
• *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.
- May—Jul 2014 **Amazon**
Machine Learning Team, Berlin (Internship)
• Worked on algorithms for learning sparse ranking models.
- Feb—Aug 2013 **Yahoo! Labs**
Social Media Engagement Group, Barcelona (Internship)
• Designed algorithms for cold-start recommendations.
- Jun—Aug 2012 **Laboratory of Computer Science, University Pierre and Marie Curie**
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.

Awards

- 2021 ***Rising Star in Data Science***, University of Chicago Rising Stars
- 2021 ***Best Reviewer***, ICWSM: International Conference on Web and Social Media
- 2019 ***Best Reviewer***, ICWSM: International Conference on Web and Social Media
- 2018 ***Best Paper Honorable Mention***, WWW: The Web Conference
- 2011—2013 ***Scholarship***, European Union full scholarship for a two-year Master's Degree
- 2008—2010 ***Scholarship***, Macedonian national scholarship for students with advanced achievements

Publications

Citation statistics available on [Google Scholar](#)

* indicates equal contribution

- Peer Review Congress'22* Counterfactual Evaluation of Peer Review Assignment Strategies in Computer Science and Artificial Intelligence
Martin Saveski, Steven Jecmen, Nihar B. Shah, Johan Ugander
 International Congress on Peer Review and Scientific Publication
- ICWSM'22a* Engaging Politically Diverse Audiences on Social Media
Martin Saveski, Doug Beeferman, David McClure, Deb Roy
International Conference on Web and Social Media. 2022. [[pdf](#)]
- ICWSM'22b* Perspective-taking to Reduce Affective Polarization on Social Media
Martin Saveski*, Nabeel Gillani*, Ann Yuan, Prashanth Vijayaraghavan, Deb Roy
International Conference on Web and Social Media. 2022. [[pdf](#)]
- WWW'21* The Structure of Toxic Conversations on Twitter
Martin Saveski, Brandon Roy, Deb Roy
The Web Conference. 2021. [[pdf](#)]
- CSCW'21* Social Catalysts: Characterizing People Who Spark Conversations Among Others
Martin Saveski, Farshad Kooti, Sylvia Morelli Vitousek, Carlos Diuk, Bryce Bartlett, Lada Adamic
Conference on Computer-Supported Cooperative Work and Social Computing. 2021. [[pdf](#)]
- WSDM'21* Balanced Influence Maximization in the Presence of Homophily
 Md Sanzeed Anwar, **Martin Saveski**, Deb Roy
International Conference on Web Search and Data Mining. 2021. [[pdf](#)]
- Nature Scientific Reports'21* Algorithmic and Human Prediction of Success in Human Collaboration From Visual Features
Martin Saveski*, Edmond Awad*, Iyad Rahwan, Manuel Cebrian
Nature Scientific Reports. 2021. [[pdf](#)]
- Biometrika'19* Testing for Arbitrary Interference on Experimentation Platforms
 Jean Pouget-Abadie, Guillaume S.J.*, **Martin Saveski***, Weitao Duan, Souvik Ghosh, Ya Xu, Edo Airolidi
Biometrika. 2019. [[pdf](#)]
- WWW'18* Me, My Echo Chamber, and I: Introspection on Social Media Polarization
 Nabeel Gillani*, Ann Yuan*, **Martin Saveski**, Soroush Vosoughi, Deb Roy
The Web Conference. 2018. (***Best Paper Honorable Mention***) [[pdf](#)]
- KDD'17* Detecting Network Effects: Randomizing Over Randomized Experiments
Martin Saveski*, Jean Pouget-Abadie*, Guillaume S.J., Weitao Duan, Souvik Ghosh, Ya Xu, Edo Airolidi
International Conference on Knowledge Discovery and Data Mining. 2017. [[pdf](#)]

- ICWSM'16* Topic Modeling in Twitter: Aggregating Tweets by Conversations
David Alvarez-Melis*, **Martin Saveski***
International Conference on Web and Social Media. 2016. (Short Paper) [pdf]
- ICWSM'16* Tracking the Yak: An Empirical Study of Yik Yak
Martin Saveski, Sophie Chou, Deb Roy
International Conference on Web and Social Media. 2016. (Short Paper) [pdf]
- WWW'16* Human Atlas: A Tool for Mapping Social Networks
Martin Saveski, Eric Chu, Soroush Vosoughi, Deb Roy
The Web Conference. 2016. (Demo) [pdf]
- KDD'15* One-Pass Ranking Models for Low-Latency Product Recommendations
Antonino Freno, **Martin Saveski**, Rodolphe Jenatton, Cédric Archambeau
International Conference on Knowledge Discovery and Data Mining. 2015. [pdf]
- RecSys'14* Item Cold-Start Recommendations: Learning Local Collective Embeddings
Martin Saveski, Amin Mantrach
Conference on Recommender Systems. 2014. [pdf]
- Socinfo'14* The Geography of Online News Engagement
Martin Saveski, Daniele Quercia, Amin Mantrach
International Conference on Social Informatics. 2014. [pdf]
- Pattern Recognition Letters'13* Joint Semi-supervised Learning of Hidden Conditional Random Fields and Hidden Markov Models
Yann Soullard, **Martin Saveski**, Thierry Artières
Pattern Recognition Letters. 2013. [pdf]
- LTC'10* Automatic Construction of Wordnets by Using Machine Translation and Language Modeling
Martin Saveski, Igor Trajkovski
Language Technologies Conference. 2010. [pdf]

Invited Talks

Data Science for Healthier Social Platforms

- Feb 2022 Georgia Institute of Technology (CSE)
- Feb 2022 University of Illinois Chicago (CS)
- Feb 2022 Dartmouth College (CS)
- Feb 2022 University of Illinois Urbana-Champaign (CS)
- March 2022 Carnegie Mellon University (Heinz)
- March 2022 University of Washington (iSchool)
- March 2022 Cornell University (IS)

Counterfactual Evaluation of Peer-Review Assignment Strategies

- Nov 2021 Conference on Digital Experimentation, MIT (CODE@MIT)

Engaging Politically Diverse Audiences on Social Media

- Oct 2022 Social AIs working group, Stanford University
- Nov 2021 Rising Stars in Data Science, University of Chicago
- Nov 2021 Computer Science, Carnegie Mellon University
- Oct 2021 Institute for Communication and Media Studies, University of Bern
- July 2021 International Conference on Computational Social Science (IC2S2)

*Polarization and Toxicity in Political Discourse Online*Feb 2020 *Twitter**The Structure of Toxic Conversations on Twitter*Sep 2020 Computational Social Science Seminar, *Facebook*Oct 2019 Social Analytics Lab, *MIT Sloan*Jan 2019 Health, Usage and Behavior team, *Twitter**Detecting Network Effects: Randomizing Over Randomized Experiments*July 2018 International Conference on Computational Social Science (*IC2S2*)Oct 2017 Conference on Digital Experimentation, *MIT (CODE@MIT)*Oct 2017 Scalable Cooperation Group, *MIT*Sep, 2017 Social Analytics Lab, *MIT Sloan***Professional Service**Senior Program Committee *ICWSM: International Conference on Web and Social Media (2022)**Program* *ICWSM: International Conference on Web and Social Media (2018, 2019, 2020, 2021)**Committee* *IC2S2: International Conference on Computational Social Science (2020, 2021)**WWW: The Web Conference (2020, 2022)**Bloomberg Data For Good Exchange (2016)**Reviewer* *Management Science (2022)**EPJ Data Science (2022)**CSCW: Conference on Computer-Supported Cooperative Work and Social Computing (2017, 2018)**Journal of the Royal Statistical Society, Series A, Statistics in Society (2018)**ACM Transactions on Information Systems (2016)**Elsevier Computer Communications, Special Issue on Online Social Networks (2015)**Other* *Application Reviewer, MIT Summer Research Program (2016)***Mentorship**

Jun'18—May'19 Sanzeed Anwar

MIT Undergraduate Research Opportunities Program

- Developed algorithms for balanced influence maximization in the presence of homophily, published at WSDM'21.

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), presented at WIN'15.

Teaching Experience

- Fall 2022 *Introduction to Computational Social Science, Stanford University*
Guest Lecture
- Fall 2016 *Machine Learning, Society & Autonomy, MIT*
Teaching Assistant
- Spring 2015 *Introduction to Social Machines: Building Systems Solutions for Social Change, MIT*
Teaching Assistant

Selected Press Coverage

- Aug 2018 *MIT Tech Review*
Technologists are trying to fix the “filter bubble” problem that tech helped create [\[link\]](#)
- Apr 2018 *NPR*
Tech Creates Our Political Echo Chambers. It Might Also Be A Solution [\[link\]](#)
- Mar 2017 *New York Times*
How to Escape Your Political Bubble for a Clearer View [\[link\]](#)
- Mar 2017 *La Stampa*
FlipFeed, l'estensione per vedere Twitter da un'altra prospettiva [\[link\]](#)
- Feb 2017 *Recode*
This Chrome add-on lets you see Twitter through the eyes of other users [\[link\]](#)
- Feb 2017 *The Outline*
MIT released a tool that uses real people's Twitter feeds to show you the “other side” [\[link\]](#)
- Feb 2017 *Mashable*
MIT-designed Chrome extension fixes your Twitter filter bubble [\[link\]](#)
- Feb 2017 *Le Monde*
Mettez-vous à la place de votre opposé politique sur Twitter [\[link\]](#)

Updated October 27, 2022 ■