

# Martin Saveski

msaveski [at] stanford.edu | martinsaveski.com

## Education

- 09/2020— ***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

- 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

### *Counterfactual Evaluation of Peer-Review Assignment Strategies*

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

### *Engaging Politically Diverse Audiences on Social Media*

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

- 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)
- Bloomberg Data For Good Exchange (2016)
- Reviewer* 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 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 December 1, 2021 ■