Martin Saveski

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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 <u>Google Scholar</u>
* 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. [<u>pdf</u>]

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. [<u>pdf</u>]

WWW'21   The Structure of Toxic Conversations on Twitter
Martin Saveski, Brandon Roy, Deb Roy
The Web Conference. 2021. [<u>pdf</u>]

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. [<u>pdf</u>]

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. [<u>pdf</u>]

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. [<u>pdf</u>]

Biometrika'19   Testing for Arbitrary Interference on Experimentation Platforms
Jean Pouget-Abadie, Guillaume S.J.*, **Martin Saveski***, Wait Duan, Souvik Ghosh, Ya Xu, Edo Airoldi
Biometrika. 2019. [<u>pdf</u>]

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)*** [<u>pdf</u>]

KDD'17   Detecting Network Effects: Randomizing Over Randomized Experiments
Martin Saveski*, Jean Pouget-Abadie*, Guillaume SJ, Weitao Duan, Souvik Ghosh, Ya Xu, Edo Airoldi
International Conference on Knowledge Discovery and Data Mining. 2017. [<u>pdf</u>]

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) [<u>pdf</u>]

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 Committee	*ICWSM:* International Conference on Web and Social Media **(2018, 2019, 2020, 2021)**
	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]

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