Martin Saveski

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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 <u>Google Scholar</u>
* 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 Airoldi
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 Airoldi
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 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, 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]

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