

Motahhare Eslami
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RESEARCH INTERESTS

Human-Computer Interaction, Social Computing, Computational Social Science, Data Mining, Data Science

EDUCATION

PhD Candidate, Computer Science 2019 (expected)
University of Illinois at Urbana-Champaign, Illinois, United States
Thesis: “Communicating Opaque Algorithmic Processes in Socio-Technical Systems”
Advisor: Karrie Karahalios

Master of Science, Computer Engineering 2011
Sharif University of Technology, Tehran, Iran

Bachelor of Science, Computer Engineering 2009
Sharif University of Technology, Tehran, Iran

HONORS AND AWARDS

- ICWSM Best Reviewer Award (awarded to the top 20 reviewers) 2018
 - Heidelberg Laureate Forum Young Researcher 2018
 - Google PhD Fellowship 2017-2019
 - C.W. Gear Outstanding Graduate Student Award, UIUC 2017
 - Adobe PhD Fellowship Finalist 2017
 - Saburo Muroga Endowed Fellowship, UIUC 2016
 - Feng Chen Memorial Award, UIUC 2016
 - Facebook PhD Fellowship Finalist 2016
 - Selected for Rising Stars in EECS Workshop 2015, 2016
 - Best Paper Award, ACM CHI 2015
 - CS Grace Hopper Conference Scholarship 2014
 - Honorable Mention in Facebook Midwest Regional Hackathon 2013
 - Exceptional Talent Award, M.Sc., Computer Engineering (IT), Sharif University of Technology 2011
 - 3rd Rank in GPA, M.Sc., Computer Engineering (IT), Sharif University of Technology 2011
 - Exceptional Talent Award, B.Sc., Computer Engineering (IT), Sharif University of Technology 2009
 - 1st rank in GPA, B.Sc., Computer Engineering (IT), Sharif University of Technology 2009
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PUBLICATIONS

Refereed Conference Papers

[c11] **M. Eslami**, S. R. Krishna Kumaran, C. Sandvig, K. Karahalios. Communicating Algorithmic Process in Online Behavioral Advertising. *Proceedings of the ACM Conference on Human Factors in Computing Systems Conference (CHI)*, 2018. [Acceptance Rate: 26%]

[c10] K. Vaccaro, D. Huang, **M. Eslami**, C. Sandvig, K. Hamilton, and K. Karahalios. The Illusion of Control: Placebo Effects of Control Settings. *Proceedings of the ACM Conference on Human Factors in Computing Systems Conference (CHI)*, 2018. [Acceptance Rate: 26%]

[c9] **M. Eslami**, K. Vaccaro, K. Karahalios, and K. Hamilton. “Be careful; things can be worse than they appear”: Understanding Biased Algorithms and Users’ Behavior around Them in Rating Platforms. *The AAAI International Conference of Weblogs and Social Media (ICWSM)*, 2017. [Acceptance Rate: 14%]

[c8] J. Kulshrestha, **M. Eslami**, J. Messias, M. B. Zafar, S. Ghosh, K. Gummadi, and K. Karahalios. Quantifying Search Bias: Investigating Sources of Bias for Political Searches in Social Media. *Proceedings of the ACM Conference on Computer Supported Cooperative Work (CSCW)*, 2017. [Acceptance Rate: 34.5%]

[c7] **M. Eslami**, K. Karahalios, C. Sandvig, K. Vaccaro, A. Rickman, K. Hamilton, and A. Kirlik. First I “like” it, then I hide it: Folk Theories of Social Feeds. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, 2016. [Acceptance Rate: 23.5%]

[c6] **M. Eslami**, A. Rickman, K. Vaccaro, A. Aleyasen, A. Voung, K. Karahalios, K. Hamilton, and C. Sandvig. “I always assumed that I wasn’t really that close to [her]”: Reasoning about Invisible Algorithms in News Feeds. *Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI)*, 2015. [Acceptance Rate: 23%] **Best Paper Award**

[c5] **M. Eslami**, A. Aleyasen, R. Zilouchian Moghadam and K. Karahalios. Friend Grouping Algorithms for Online Social Networks: preference, bias, and implications. *International Conference on Social Informatics (SocInfo)*, 2014. [Acceptance Rate: 23%]

[c4] **M. Eslami**, H. R. Rabiee, and M. Salehi. Sampling from Diffusion Networks. *ASE and IEEE International Conference on Social Informatics*, 2012. [Acceptance Rate: 11.5%]

[c3] Payam Siyari, H. R. Rabiee, M. Salehi and **M. Eslami**. Network Reconstruction under Compressive Sensing. *ASE and IEEE International Conference on Social Informatics*, 2012. [Acceptance Rate: 11.5%]

[c2] **M. Eslami**, H. R. Rabiee, and M. Salehi. Diffusion-Aware Sampling and Estimation in Information Diffusion Networks. *IEEE International Conference on Social Computing*, 2012. [Acceptance Rate < 10%]

[c1] **M. Eslami**, H. R. Rabiee, and M. Salehi. DNE: A Method for Extracting Cascaded Diffusion Networks from Social Networks. *IEEE International Conference on Social Computing*, 2011. [Acceptance rate: 9.8%]

Refereed Journal Papers

[j3] J. Kulshrestha, **M. Eslami**, J. Messias, M. B. Zafar, S. Ghosh, K. P. Gummadi, and K. Karahalios. Search bias quantification: investigating political bias in social media and web search. *Information Retrieval Journal*, 1-40, 2018.

[j2] E. S. Hosseini, V. Esmaelzadeh, and **M. Eslami**. A Hierarchical Sub-Chromosome Genetic Algorithm (HSC-GA) to Optimize Power Consumption and Data Communications Reliability in Wireless Sensor Networks. *Wireless Personal Communications (Springer)*. Vol. 80, no. 4, pp. 1579-1605, Oct. 2014.

[j1] P. Siyari, H. R. Rabiee, M. Salehi, and **M. Eslami**. Network Reconstruction under Compressive Sensing. *ASE Human Journal*. Vol.1, issue 3, pp. 130-143, 2012.

Extended Abstracts & Work-in-Progress Papers

[e7] **M. Eslami**, A. Aleyasen, K. Karahalios, K. Hamilton and C. Sandvig. FeedVis: A Path for Exploring News Feed Curation Algorithms. *ACM Conference on Computer Supported Cooperative Work (CSCW)*, Demonstration Paper, 2015.

[e6] **M. Eslami**, A. Rickman, K. Vaccaro, A. Aleyasen, K. Karahalios, K. Hamilton, and C.Sandvig. Exposure to the Invisible: Reasoning about Hidden Algorithms in the News Feed, *International Conference on Computational Social Science (IC²S²)*, 2015.

[e5] **M. Eslami**. Exposure to the Invisible: Algorithm Awareness from the Individual to the Collective. *CSL Student Conference, University of Illinois at Urbana-Champaign*, 2015.

[e4] K.Hamilton, K.Karahalios, C.Sandvig and **M.Eslami**. A Path to Understanding the Effects of Algorithm Awareness. *Alt.Chi: Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI)*, 2014.

[e3] N.Spirin, **M.Eslami**, J.Ding, P.Jain, B.Bailey and K.Karahalios. Searching for Design Examples with Crowdsourcing. *International World Wide Web Conference (WWW) Poster*, 2014.

[e2] **M. Eslami**, A.Aleyasen, R.Zilouchian Moghadam and K. Karahalios. Evaluation of Automated Friend Grouping in Online Social Networks. *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems (CHI)*, 2014.

[e1] **M.Eslami**, A.Aleyasen and K. Karahalios. Make Community Detection More Human. *The Human Computer Interaction Consortium (HCIC) Boaster*, 2013.

Workshop Papers

[w3] **M. Eslami** and K. Karahalios. Communicating the Algorithmic Self to Users. *The AAAI International Conference of Weblogs and Social Media (ICWSM)*, Workshop on Data Driven Persona and Human-Driven Analytics, 2018.

[w2] **M. Eslami** and K. Karahalios. Embracing Seamfulness and Uncertainty in Designing around Hidden Algorithms. *ACM Conference on Human Factors in Computing Systems (CHI)*, Workshop on Designing for Uncertainty in HCI: When Does Uncertainty Help?, 2017.

[w1] **M. Eslami** and K. Karahalios. Investigating Users' Understanding of Invisible Algorithms and Designing around It *The AAAI International Conference of Weblogs and Social Media (ICWSM)*, Workshop on Studying User Perceptions and Experiences with Algorithms, 2017.

Doctoral Colloquium

[d1] **M.Eslami**. Understanding and Designing around Users' Interaction with Hidden Algorithms in Socio-technical Systems. *ACM Conference on Computer Supported Cooperative Work (CSCW) Doctoral Colloquium*, 2017.

Under Submission

[s3] **M.Eslami**, K. Vaccaro, M. K. Lee, A. Elazari Bar On, E. Gilbert, and K. Karahalios. User Attitudes towards Algorithmic Opacity and Transparency in Online Reviewing Platforms. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2019.

[s2] J. O. Salminen, J. M. Santos, **M.Eslami**, S. Jung, and B. J. Jansen. Persona Transparency: How Including Explanations Influences User Perceptions of Persona Profiles. *ACM Conference on Human Factors in Computing Systems (CHI)*, 2019.

[s1] **M.Eslami**, N. Soliman, and K. Karahalios. Breaking Political Filter Bubbles via Social Comparison. *ACM Conference on Human Factors in Computing Systems (CHI)*, Case Study, 2019.

PROFESSIONAL EXPERIENCE

- Graduate Research Assistant, CS Department, UIUC 2012-2018
- Research Intern, Adobe Research, San Francisco, CA Spring & Summer 2017
- Research Intern, Max Planck Institute for Software Systems, Saarbruecken, Germany Fall 2015
- Graduate Research Assistant, CE Department, Sharif University of Technology 2009-2012
- Undergraduate Research Assistant, CE Department, Sharif University of Technology 2007-2009

TEACHING EXPERIENCE

- *Teaching Assistant*, Introduction to Data Mining, UIUC Spring 2018
- *Teaching Assistant*, Stochastic Processes, Sharif University of Technology Fall 2011
- *Teaching Assistant*, Multimedia Networks, Sharif University of Technology Spring 2010
- *Teaching Assistant*, Software Engineering, Sharif University of Technology Spring 2009
- *Teaching Assistant*, Advanced Programming (Java), Sharif University of Technology Fall 2008
- *Teaching Assistant*, Introduction to Programming (C++), Sharif University of Technology Fall 2007, Spring 2008

STUDENT MENTORING EXPERIENCE

- *Internship Mentor*, UIUC Summer & Fall 2018
 - Nouran Soliman: Working on the filter bubble project and building the BubbleBreaker Twitter application
- *Research Advisor* to Masters students, UIUC & Sharif University
 - Joshua Asplund: Working on the housing audit project Summer & Fall 2018
 - Jingning Zhang: Working on the Fiddler project (now software engineer at Facebook) Fall 2014 & Spring 2015
 - Payam Siyari: Working on sampling on diffusion networks (now PhD student at Georgia Tech) Spring 2012
- *Research Advisor* to UIUC undergraduates, PURE Program Spring 2014
 - Andy Vuong, Akshat Gupta, and Akshun Gupta: Teaching HCI fundamentals

Invited Talks & Panels

- Association of Internet Researchers (AoIR) Conference, Montreal, Canada Fall 2018
Panel: “Kicking the Black Box: The Perils and Promise of Algorithm Auditing”
 - Big Data Summit, UIUC Fall 2018
Panel: “Big Data Summit Data Governance”
 - CS 498: Computational Advertising, UIUC Fall 2018
Lecture: “Communicating Process in Online Behavioral advertising”
 - Adobe Research, San Francisco, CA Summer 2017
HCI Intern talks: “Communicating Process in Online Behavioral advertising”
 - CSL Student Conference, UIUC Spring 2015
“Exposure to the Invisible: Algorithm Awareness from the Individual to the Collective”
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SERVICE

Program Committee

- International Conference on Web and Social Media (ICWSM) 2016-2019

Reviewer

- Human Factors in Computing Systems Conference (CHI) 2016-2019
- Computer-Supported Cooperative Work and Social Computing Conference (CSCW) 2016-2019
- International Conference on Web and Social Media (ICWSM) 2015-2019
- ACM International Management of Management of Data (SIGMOD) 2017
- Semantic Web Journal 2017
- Social Media+Society Journal 2016
- International Journal of Human-Computer Studies 2016
- Behaviour & Information Technology Journal 2015
- Elsevier Computer Communications Journal 2015
- IEEE International Conference on Social Computing (SocialCom) 2011-2012

Student Volunteer

- CSCW SV 2018
- CSCW SV Chair 2019

SELECTED MEDIA COVERAGE

- “We Need Bug Bounties for Bad Algorithms” May 3, 2018
Motherboard (Vice). Amit Elazari Bar On
- “Op-ed: What algorithms can learn from Donald Trump’s hair” Jul 23, 2016
Digiday. Elizabeth Lee
- “Facebook’s news feed algorithm is so mysterious, users are developing ‘folk theories’ about how it works” May 14, 2016
Quartz. Joon Ian Wong
- “Is Facebook reinforcing your political bias?” May 11, 2016
The Christian Science Monitor. Max Lewontin
- “Will an artificially intelligent robot steal your job?” Apr 11, 2016
BBC. Graihagh Jackson
- “Search Engine Agendas” Apr 2016
Communications of ACM. Gary Anthes
- “How Facebook and Google’s Algorithms Are Affecting Our Political Viewpoints” Oct 15, 2015
Huffingtonpost. Megan Anderle
- “Here’s How Facebook’s News Feed Actually Works” July 9, 2015
Time. Victor Luckerson
- “Many, many Facebook users still don’t know that their news feeds are filtered by an algorithm” Mar 27, 2015
Splinter. Alexis Madrigal
- “How do you govern a (hidden, fluid and amoral) algorithm?” Mar 18, 2015
Fortune. Stacey Higginbotham
- “How Algorithms Subtly Control What We Read, Hear, Watch And (Ultimately) Think” Mar 16, 2015
International Business Times. Christopher Zara
- “Algorithm Awareness” Oct 21, 2014
MIT Technology Review. Karrie Karahalios and Sam Kerr

- “Algorithm Awareness” *CBC Radio* Sep 21, 2014
 - “The secret system controlling your Facebook News Feed” *New Scientist*. Hal Hodson Jul 30, 2014
 - “A Social Science Audit for Facebook’s News Feed?” *Social Science Space*. J. Nathan Matias Jul 30, 2014
 - “OkCupid reveals it’s been lying to some of its users. Just to see what’ll happen” *Washington Post*. Brian Fung Jul 28, 2014
 - “Uncovering Algorithms: Looking Inside the Facebook News Feed” *MIT Center for Civic Media*. J. Nathan Matias Jul 22, 2014
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REFERENCES

Karrie Karahalios

Professor, *Computer Science Department*, UIUC
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Christian Sandvig

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Krishna P. Gummadi

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Hari Sundaram

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