Forough Poursabzi-Sangdeh

forough.poursabzi@microsoft.com
https://csel.cs.colorado.edu/~fopo5620/
Microsoft Research
641 Avenue of the Americas, 7th Floor
New York, NY 10011

RESEARCH INTERESTS

My research interests are at the intersection of machine learning and computational social science. I am interested in understanding how humans use AI and how we can design systems that bring humans and AI together to enable humans complete tasks better and faster. Consequently, I am interested in social impacts of AI and particularly, I have been studying how people's decision making is affected by interpretability of machine learning models.

EDUCATION

University of Colorado, Boulder, CO
PhD in Computer Science, 2013 - 2018
Supervisor: Jordan Boyd-Graber
Thesis: Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
Master of Science, Computer Science, 2013 - 2015

University of Tehran, Tehran, Iran
BE in Computer Engineering, 2008 - 2012

EMPLOYMENT

Microsoft Research, New York, NY
Postdoctoral Researcher, July 2018 - Present

Microsoft Research, New York, NY
Research Intern, June 2017 - August 2017
Supervisors: Jennifer Wortman Vaughan, Hanna Wallach, Daniel Goldstein, Jake Hofman
Research on measuring interpretability of machine learning models with an emphasis on human-subject experiments.

Oracle Labs, Burlington, MA
Research Intern, June 2016 - August 2016
Supervisor: Pallika Kanani
Research on text classification with minimally labeled documents using active learning and topic models.

University of Colorado, Boulder, CO
Research Assistant, August 2014 - July 2018
Supervisor: Jordan Boyd-Graber
Research on human-in-the-loop and interpretable machine learning. Designing and implementing systems to reduce human effort in text analysis and understanding.

PUBLICATIONS

Forough Poursabzi-Sangdeh, Daniel G. Goldstein, Jake M. Hofman, Jennifer Wortman Vaughan, and Hanna Wallach. "Manipulating and Measuring Model Interpretability". NIPS Transparent and Interpretable Machine Learning in Safety Critical Environments workshop, 2017.

Forough Poursabzi-Sangdeh, Jordan Boyd-Graber, Leah Findlater, Kevin Seppi. "ALTO: Active Learning with Topic Overviews for Speeding Label Induction and Document Labeling". Association for Computational Linguistics, 2016. [Code, now being used by Snajajob]

Alison Smith, Tak Yeon Lee, **Forough Poursabzi-Sangdeh**, Jordan Boyd-Graber, Niklas Elmqvist, Kevin Seppi, Leah Findlater. "Human-Centered and Interactive: Expanding the Impact of Topic Models". Proc. HCML Workshop at CHI, 2016.

Alison Smith, Tak Yeon Lee, **Forough Poursabzi-Sangdeh**, Leah Findlater, Jordan Boyd-Graber, and Niklas Elmqvist. "Evaluating Visual Representations for Topic Understanding and Their Effects on Manually Generated Labels". Transactions of the Association for Computational Linguistics, 2017.

Forough Poursabzi-Sangdeh, and Jordan Boyd-Graber. "Speeding Document Annotation with Topic Models". NAACL-HLT 2015 Student Research Workshop (SRW), 2015.

Jason Chuang, John D. Wilkerson, Rebecca Weiss, Dustin Tingley, Brandon M. Stewart, Margaret E. Roberts, **Forough Poursabzi-Sangdeh**, Justin Grimmer, Leah Findlater, Jordan Boyd-Graber, and Jeffrey Heer. "Computer-Assisted Content Analysis: Topic Models for Exploring Multiple Subjective Interpretations". NIPS Workshop on Human-Propelled Machine Learning, 2014.

Forough Poursabzi-Sangdeh, and Ananth Kalyanaraman. "On Clustering Heterogeneous Networks". SIAM Workshop on Network Science, 2013.

INVITED TALKS

Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
Machine Learning Conference, San Francisco, CA, November 2018

Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
European Conference on Data Analysis (ECDA), Paderborn, Germany, July 2018
(could not attend due to visa restrictions)

Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
Department of Information Science, Boulder, CO, March 2018

Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
Microsoft Research, New York, NY, March 2018

Design and Empirical Evaluation of Interactive and Interpretable Machine Learning
Oracle Labs, Burlington, MA, March 2018

PROFESSIONAL SERVICE

Reviewer

ACM Transactions on Computing Education, 2018

International Conference on Artificial Intelligence and Statistics, 2018

Empirical Methods in Natural Language Processing, 2018

International Conference on Computational Linguistics, 2018

European Association for Computational Linguistics, 2016

Program Committee

Workshop on Explainable Smart Systems (EXSS) at IUI, 2018, 2019

Black in AI Workshop at NIPS, 2017, 2018

SKILLS

Languages	Java, Python, C++
Web	Javascript, HTML, CSS

HONORS AND AWARDS

University of Colorado Thesis Completion Fellowship, 2018

Research Community Development award, 2013

Exemption from Nationwide Entrance Exam for MS in computer engineering, 2011

Ranked 338 in Nationwide Entrance Exam for BS among 400,000 participants, 2008

MENTORING

You Lu, Masters student at University of Colorado , 2016
Research mentor for topic-model based information retrieval for question-answering system, analysis of a large-scale patent-grant dataset, and evaluating definitive answers to questions

TEACHING EXPERIENCE

University of Colorado
Teaching Assistant for Introduction to Programming course, August 2013 - August 2014

University of Tehran
Teaching Assistant for Discrete Mathematics course, August 2011 - January 2012