

Mahsan Nourani, Ph.D.

Human-centered AI/XAI . Responsible AI . Decision-making . Visual Analytics

My interdisciplinary research lies in the intersection of HCI, AI/ML, psychology, and social sciences. I study people's interactions with and understanding of AI/ML systems, specifically those used for AI-assisted decision-making. My research has implications for building ethical and responsible AI systems.

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 [Github](#)

 [Google Scholar](#)

Education

- Aug 2017 – Aug 2023** ***Ph.D., Computer Science***
University of Florida (Transferred: Texas A&M University in 2018), Gainesville, Florida
Thesis: "Shadows of the Past: The Effects of User's Differences and Past Experiences on Human-AI Partnership"
Advisor: [Eric D. Ragan](#)
Committee: [Juan Gilbert](#), [Jenn Wortman Vaughan](#), [Peter Kvam](#), [Vincent Binschaedler](#)
- Dec 2021** ***M.S., Computer Science***
University of Florida, Gainesville, Florida
GPA: 3.80/4.0
- Sep 2012 – Jun 2017** ***B.E., Information Technology (Computer Engineering)***
University of Tehran, Tehran, Iran
Thesis: "Teaching Turn-taking to Children with Autism"
GPA: 3.70/4.0

Research Experience

- Oct 2023 – Present** ***Northeastern University***, Khoury College of Computer Science
Research Assistant Professor and Roux Institute Member
- Aug 2018 – Aug 2023** ***University of Florida***, Gainesville, Florida
Research Assistant
Advisor: [Eric D. Ragan](#)
- May 2022 – Aug 2022** ***Apple Inc.***, Sunnyvale, California
Research Intern, Technology Development Group
Mentor: [Marco Cavallo](#)
- May 2021 – Aug 2021** ***Microsoft Research***, New York, New York
Research Intern, Fairness, Accountability, Transparency, & Ethics (FATE) team
Mentor: [Hal Daumé III](#), [Jenn Wortman Vaughan](#), [Solon Barocas](#), [Forough Poursabzi](#)
- Aug 2017 – Aug 2018** ***Texas A&M University***, College Station, Texas
Research Assistant
Advisor: [Eric D. Ragan](#)
- Feb 2015 – Jun 2017** ***University of Tehran***, Tehran, Iran
Undergraduate Research Assistant
Advisor: [Hadi Moradi](#)


Honors and Awards

- 2022** Doctoral Colloquium Fellowship
IEEE Visualization & Visual Analytics Conference, Participant & Recipient
- 2021** ACM IUI Best Paper Award (C.5)
Honorable Mention, Recipient
- 2021, 2022** Gartner Group Graduate Fellowship
Herbert Wertheim College of Engineering, University of Florida, Recipient

- 2021 – 2023 Special Recognition for Outstanding Review**
ACM CHI Conference on Human Factors in Computing Systems, Recipient
- 2020 Outstanding Achievement Award (Top 9%)**
Herbert Wertheim College of Engineering, University of Florida, Recipient
- 2016 4th Iran Game Developers Cup (team participation)**
Kashan, Iran, Winner
- 2012 Nationwide University Entrance Exam in Mathematics and Physics (Top 0.1%)**
Tehran, Iran, Ranked 542th
- 2012 Nationwide University Entrance Exam in English and Foreign Languages (Top 0.4%)**
Tehran, Iran, Ranked 242th

Publications



Ph.D. Dissertation

-  **Shadows of the Past: The Effects of User's Differences and Past Experiences on Human-AI Partnership**
Mahsan Nourani
University of Florida, Herbert Wertheim School of Engineering. Doctoral Dissertation. (August 2023)

Refereed Journal Papers

- J.6 Explainable Activity Recognition in Videos using Deep Learning and Tractable Probabilistic Models**
Chiradeep Roy, **Mahsan Nourani**, Shivrat Arya, Mahesh Shanbhag, Tahrira Rahman, Eric D Ragan, Nicholas Ruozzi, Vibhav Gogate
ACM Transactions on Interactive Intelligent Systems (TiiS). (2023)
- J.5 An Evaluation of View Rotation Techniques for Seated Navigation in Virtual Reality**
Brett Benda, Shyam Prathish Sargunam, **Mahsan Nourani**, Eric D Ragan
IEEE Transactions on Visualization and Computer Graphics (TVCG). (2023)
- J.4 DETOXER: A Visual Debugging Tool with Multi-Scope Explanations for Temporal Multi-Label Classification**
Mahsan Nourani, Chiradeep Roy, Donald Honeycutt, Eric Ragan, Vibhav Gogate
IEEE Computer Graphics and Applications (CG&A). (2022)
- J.3 On the Importance of User Backgrounds and Impressions: Lessons Learned from Interactive AI Applications**
Mahsan Nourani, Chiradeep Roy, Jeremy Block, Donald Honeycutt, Tahrira Rahman, Eric Ragan, Vibhav Gogate
ACM Transactions on Interactive Intelligent Systems (TiiS). (2022)
- J.2 Explainable Activity Recognition in Videos: Lessons Learned**
Chiradeep Roy, **Mahsan Nourani**, Jeremy Block, Donald Honeycutt, Tahrira Rahman, Eric Ragan, Nicholas Ruozzi, Vibhav Gogate
Applied AI Letters. (2021)
- J.1 SplitStreams: A Visual Metaphor for Evolving Hierarchies**
Fabian Bolte, **Mahsan Nourani**, Eric Ragan, Stefen Bruckner
IEEE Transactions on Visualization and Computer Graphics (TVCG). (2020)

Refereed Conference Papers

-  **C.5 Anchoring Bias Affects Mental Model Formation and User Reliance in Explainable AI Systems**
Mahsan Nourani, Chiradeep Roy, Jeremy Block, Donald Honeycutt, Tahrira Rahman, Eric Ragan, Vibhav Gogate
26th International Conference on Intelligent User Interfaces (IUI). (2021)
 Best paper, Honorable Mention Award
- C.4 Understanding the Effects of Explanation Types and User Motivations on Recommender System Use**
Qing Li, Sharon Chu, Nanjie Rao, **Mahsan Nourani**
In AAAI Conference on Human Computation and Crowdsourcing (HCOMP). (2021)
- C.3 Soliciting Human-in-the-Loop User Feedback for Interactive Machine Learning Reduces User Trust and Impressions of Model Accuracy**
Donald Honeycutt, **Mahsan Nourani**, Eric Ragan
In AAAI Conference on Human Computation and Crowdsourcing (HCOMP). (2021)
- C.2 The Role of Domain Expertise in User Trust and The Impact of First Impressions with Intelligent Systems**
Mahsan Nourani, Joanie King, Eric Ragan
In AAAI Conference on Human Computation and Crowdsourcing (HCOMP). (2020)
- C.1 The Effects of Meaningful and Meaningless Explanations on Trust and Perceived System Accuracy in Intelligent Systems**
Mahsan Nourani, Samia Kabir, Sina Mohseni, Eric Ragan
In AAAI Conference on Human Computation and Crowdsourcing (HCOMP). (2019)

Conference Workshop Papers, Posters, and Presentations

- P.5 Shadows of the Past: The Effects of User's Past Experiences and Expectations on Human-AI Partnership**
Mahsan Nourani
 IEEE Visualization and Visual Analytics Conference, Doctoral Colloquium (DC). (2022)
- P.4 Romadoro: Leveraging Nudge Techniques to Encourage Break-Taking**
 Katarina Jurczyk, Christopher You, **Mahsan Nourani**, Manas Gupta, Lisa Anthony, Benjamin Lok
 The ACM Symposium on User Interface Software and Technology (UIST). (2021)
- P.3 Investigating the Importance of First Impressions and Explainable AI with Interactive Video Analysis**
Mahsan Nourani, Chiradeep Roy, Donald Honeycutt, Jeremy Block, Tahrira Rahman, Eric Ragan, Vibhav Gogate
 Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI LBW). (2020)
- P.2 Explainable Activity Recognition in Videos**
 Chiradeep Roy, Mahesh Shanbhag, **Mahsan Nourani**, Tahrira Rahman, Samia Kabir, Vibhav Gogate, Nicholas Ruozzi, Eric Ragan
 IUI 2nd workshop on Explainable Smart Systems (ExSS, now TExSS). (2019)
- P.1 Explainable Activity Recognition in Videos using Dynamic Cutset Networks**
 Chiradeep Roy, **Mahsan Nourani**, Mahesh Shanbhag, Samia Kabir, Tahrira Rahman, Eric Ragan, Nicholas Ruozzi, Vibhav Gogate
 3rd Workshop of Tractable Probabilistic Modeling (TPM 2019). (2019)

Pre-prints

- A.1 Don't Explain without Verifying Veracity: An Evaluation of Explainable AI with Video Activity Recognition**
Mahsan Nourani, Chiradeep Roy, Tahrira Rahman, Eric Ragan, Nicholas Ruozzi, Vibhav Gogate
 arXiv:2005.02335 (2020)

Talks and Presentations

- Shadows of the Past: The Effects of User's Past Experiences and Expectations on Human-AI Partnership**
2022 IEEE Visualization & Visual Analytics Conference, Doctoral Colloquium — 📧 Invited Talk
2022 University of Florida Thesis Proposal
- Beware of the Biases: The Role of User Biases in Explainable AI Systems**
2021 Microsoft Research — 📧 Invited Talk
2021 Visualization Summer Camp — 📧 Invited Talk
- The Effects of Predicting and Explaining People's Errors on Their Predictions**
2021 Intern Tea Talk, Microsoft Research
- Anchoring Bias Affects Mental Model Formation and User Reliance in Explainable AI Systems**
2021 ACM Conference on Intelligent User Interfaces (IUI)
2021 DARPA eXplainable AI (XAI) Program Workshop
2020 University of Florida affiliated Virtual CHI
- Splitstreams: A Visual Metaphor for Evolving Hierarchies**
2020 IEEE Visualization & Visual Analytics Conference, Co-presented
- The Role of Domain Expertise in User Trust and The Impact of First Impressions with Intelligent Systems**
2020 AAAI Conference on Human Computation and Crowdsourcing (HCOMP)
- The effects of Explanation Meaningfulness and Veracity on Intelligent System Usage**
2019 The UFII Student Data Analysis Seminar (SDAS) — 📧 Invited Talk
2019 AAAI Conference on Human Computation and Crowdsourcing (HCOMP)

Teaching Experience

- Guest Lecturer: Human-Computer Interactions (CEN 4721)**
 University of Florida — Spring 2021, Spring 2022
 Lecture on introduction to Human-Centered AI and Explainable AI
- Teaching Assistant: Introduction to Computer Systems and Programming (C)**
 University of Tehran — Fall 2015
 Project Chief TA and Lab Coordinator. Supervised 10 TAs and over 220 students.
- Teaching Assistant: Advanced Programming (C++)**
 University of Tehran — Fall 2014, Spring 2015
 HW desiner and held extra-curricular lectures.
- Teaching Assistant: Data Structures and Algorithms (Java)**
 University of Tehran — Spring 2015, Fall 2015
 HW desiner and held extra-curricular lectures.

Mentoring Experience

- 2019 – 2021** **Donald Honeycutt**, Ph.D. student at University of Florida
As the project lead, I taught him the ropes of doing research in the first 2 years of their PhD.
- 2019 – 2021** **Jeremy Block**, Ph.D. student at University of Florida
As the project lead, I taught him the ropes of doing research in the first 2 years of their PhD.
- Summer 2019** **Ezekiel Ajayi**, BE. student at University of Maryland, Baltimore County
Mentor through the NSF's Research Experience for Undergraduates (REU) program.

Service Activities

Organizer

IEEE VIS Workshop on TRust and EXpertise in Visualization (TREX) – 2022, 2021, 2020
University of Florida Affiliated Virtual CHI (conference cancelled due to COVID) – 2020

Program Committee

IEEE VIS Workshop on TRust and EXpertise in Visualization (TREX) – 2022, 2021, 2020
ACM CHI workshop on Human-Centered Explainable AI (HCXAI) – 2022
NeurIPS workshop on Human-Centered AI (HCAI) – 2022

Reviewer

IEEE Transactions on Visualization and Computer Graphics (TVCG) – 2022, 2021
ACM Conference on Computer-Supported Cooperative Work And Social Computing (CSCW) – 2023
IEEE Visualization and Visual Analytics Conference (VIS) – 2022, 2021
ACM Conference on Human Factors in Computing Systems (CHI) – 2024, 2023, 2022, 2021
ACM Interaction Design and Children Conference (IDC) – 2023
Workshop on Visualization for AI Explainability (VISxAI) – 2021

Volunteer Experience

- October 2021** **Student Volunteer**
IEEE Visualization & Visual Analytics Conference, Remote
- 2021, 2020, 2019** **Student Volunteer**
Prospective PhD student visit weekend, University of Florida
- November 2019** **Event Coordinator**
CodeIT Day Event (CS programming workshop for underprivileged K12 students), Belle Glade, FL
- Summer 2019** **Graduate Mentor and Coordinator**
NSF IMHCI-REU Program, University of Florida
- 2016** **Journalist**
ACM Student Chapter F1 Magazine, University of Tehran
- 2014 – 2017** **Student Body & Member**
University of Tehran Game Club Student Chapter, University of Tehran