

# SINA MOHSENI

**Computer Science PhD Candidate, Texas A&M University.**

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## EDUCATION

- Computer Science PhD candidate, Texas A&M University, College station, Texas. (2016-present)
  - Interpretable Machine learning, HCI and Visual Analytics Research.
- M.Sc. in Electronic Engineering, Babol Noshirvani University, Iran. Computer Vision major. (2012-14)
  - Thesis: Facial Expression Recognition Based on Anatomy of Face.
- B.Sc. in Electrical and Electronic Engineering, University of Isfahan, Iran. (2007-11)

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## PROFESSIONAL EXPERIENCE

- **RESEARCH INTERN, BOSCH RTC, PITTSBURGH.**
  - ❖ Implemented a Crowdsourcing LiDAR Data Annotation platform in Self-driving Cars Applications. (Summer 2018)
- **RESEARCH ASSISTANT, TEXAS A&M UNIVERSITY.**
  - ❖ Designed an interpretable interface for our fake news detection system
  - ❖ Proposed a nested design and evaluation model for interpretable machine learning systems.
  - ❖ Proposed human judgment evaluation score for explanations from interpretable machine learning.
  - ❖ Designed a user interaction clustering and visualization method for provenance retrieval
  - ❖ Designed a provenance visualization system to segment user work by user interaction processing.
- **RESEARCH ASSISTANT, OREGON STATE UNIVERSITY.**
  - ❖ Design Automation Toolbox for CAD Kernels to Apply Shrinkage Factors in Investment Casing. Center for e-Design Grant. (2016)
- **RESEARCH ASSISTANT, BABOL NOSHIRVANI UNIVERSITY.**
  - ❖ Project 1: Designed and Implemented a New Metaheuristic Optimization Algorithm: Competition Over Resource. (Spring 2014 - Summer 2015)
  - ❖ Project 2: Developed a Facial Expression Recognition System Based on Anatomical Structure of Human Face. (Fall 2013 - Fall 2014)

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## TECHNICAL SKILLS

- Languages: Python, JavaScript, R, MATLAB, C++, C#.
- Machine learning: Scikit-learn, OpenCV, Keras, Gensim, SpaCy, LIME.
- Visualization and UI: D3.js, Three.js, Bootstrap.
- HCI and UX: User Centered Design, Usability Test, Controlled Experiment, Empirical Methods and Statistical Analysis, Interaction Logs Analysis, Think Aloud.
- Crowdsourcing: mTurk-API, Workflow Design, Micro Task Design, User Behavior Analysis, Micro-payment Models, Task Expert-pool.

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## PUBLICATION

- Sina Mohseni and Eric Ragan "A Survey of Evaluation Methods and Measures for Interpretable Machine Learning". Submitted to CHI 2018.
- Sina Mohseni, et al. "ProvThreads: Analytic Provenance Visualization and Segmentation" VAST 2017.
- Mohseni, Sina, et al. "Facial expression recognition using anatomy based facial graph." SMC 2014.
- Sina Mohseni, et al. "Competition over resources: a new optimization algorithm based on animals behavioral ecology." INCoS 2014.

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## PATENTS

- Insulator Leakage Current Monitoring and Alarm System in Power Transmission Systems, Iran Patent Office, IRP/021579. (2014)
- Blood Pressure Monitor Calibrating Device and Corresponding Method, European Patent, WO/2014/060012. (2010)

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## AWARDS

- Golestan Province Power Distribution Co. Research Grant (PI), "Insulator Leakage Current Monitoring and Alarm System in Power Transmission Systems". (2014)
- Isfahan Province Regional Power Distribution Co. Research Grant (Co-PI), "Study on Effects of CFL Lamp on Power Distribution System". (2011)