David Mosallanezhad

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RESEARCH INTERESTS

My research is about Trustworthy AI. My focus is studying privacy, fairness, and robustness of AI/ML systems.

EDUCATION

Arizona State University **Spring 2019 - 2022**
PhD, Computer Science *Tempe, AZ*
- **4.0/4.0** GPA
- Funded by **DHS-CAOE**

Shiraz University **2015 - 2018**
MSc, Computer Science, Artificial Intelligence *Shiraz, Iran*
- **4.0/4.0** GPA

Shiraz University **2011 - 2015**
BSc, Computer Science, Software Engineering *Shiraz, Iran*
- **3.83/4.0** GPA

TECHNICAL SKILLS

Skills: Data analysis using Python, PyTorch, Tensorflow, Keras, Numpy, and Scikit – SQL – Web Servers – AWS – Google Cloud Platform – NVIDIA NeMo – NVIDIA NGC
Experiences: C++, C, Kotlin, and JAVA.

WORK EXPERIENCE

NVIDIA **Jun 2022 – Present**
Senior Applied Research Scientist, AI Apps Team *Remote*

NVIDIA **Jun 2021 – Aug 2021**
Applied Research Intern, AI Apps Team *Remote*
- Researched the robustness of neural machine translation (NMT) models
- Created data augmentation methods to mitigate gender bias and make a robust NMT model

DHS-CAOE **Aug 2019 – Aug 2022**
Graduate Research Assistant *Tempe, AZ*
- Working on a program to audit a machine learning model to analyze its fairness
- Researching on face-matching task difficulties for both AI and human
- Analyzing different face recognition models in terms of privacy and fairness

DMML Lab **Aug 2019 – Present**
Graduate Research Assistant *Tempe, AZ*
- Leading a comprehensive survey on text generation and detecting machine-generated text
- Consultant for deep-fake and NLP related projects

Allen Institute for AI **Jul 2020 – Present**
Volunteer Remote
- Volunteer for ParsiGLUE project, a suite of high-level NLP tasks for Persian language
- Currently working on query-query paraphrasing task: data annotation, and benchmark models

Shiraz University **2017**
IT Manager *Shiraz, Iran*
- Setting up server farm for Deep Learning purposes and managing them

East Data Processing **2016 – 2017**
Lead Python Programmer *Tehran, Iran*
- Leading a project to create hassle-free APIs for different websites
- Created a parallel program for executing user's commands to automate routine processes on different websites

Shiraz University **2015 – 2016**
Web Developer *Shiraz, Iran*
- One of creators of the Open-Source Electrophysiological Toolbox website

Shiraz University **2012**
Undergrad Researcher *Shiraz, Iran*
- Collected and researched important Android vulnerabilities and exploits

MENTORING

Nayoung Kim **2021 – Present**
Data Mining and Machine Learning Lab, ASU

Zeyad Alghamdi **2022 – Present**
Data Mining and Machine Learning Lab, ASU

Mertay Dayanc **2021**
Data Mining and Machine Learning Lab, ASU

PUBLICATIONS (Google Scholar: David Mosallanezhad - Google Scholar)

Bridging the Gap between Online and Offline Data. **Under Review**
Nayoung Kim, **Ahmadreza Mosallanezhad**, Lu Cheng, Baoxin Li, Huan Liu

Let's Eat Grandma: Does Punctuation Matter in Sentence Representation? **ECML-PKDD'22**
Mansooreh Karimi*, **Ahmadreza Mosallanezhad***, Michelle Mancenido, Huan Liu
* Equal contribution

Bias Mitigation for Toxicity Detection via Sequential Decisions **SIGIR'22**
Lu Cheng, **Ahmadreza Mosallanezhad**, Yasin Silva, Deborah Hall, Huan Liu

Domain Adaptive Fake News Detection via Reinforcement Learning **WWW'22**
Ahmadreza Mosallanezhad, Mansooreh Karami, Kai Shu, Michelle Mancenido, Huan Liu

Generating Topic-Preserving Synthetic News **BigData'21**
Ahmadreza Mosallanezhad, Kai Shu, Huan Liu

Mitigating Bias in Session-based Cyberbullying Detection: A Non-Compromising Approach **ACL'21**
Lu Cheng*, **Ahmadreza Mosallanezhad***, Yasin Silva, Deborah Hall, Huan Liu
* Equal contribution

Causal Learning for Socially Responsible AI **IJCAI'21**
Lu Cheng, **Ahmadreza Mosallanezhad**, Paras Sheth, Huan Liu

How Deferral Rate Can Affect Human Performance and Trust Perception?
A Human-AI Joint Face-Detection Task **IEA'21**
Pouria Salehi, Erin Chiou, Michelle Mancenido, **Ahmadreza Mosallanezhad**, Aksheshkumar Shah, Myke Cohen

Toward Privacy and Utility Preserving Image Representation **SBP-BRiMS'20**
Ahmadreza Mosallanezhad, Yasin Silva, Michelle Mancenido, Huan Liu

Privacy-Aware Recommendation with Private-Attribute Protection using Adversarial Learning **WSDM'20**
Ghazaleh Beigi, **Ahmadreza Mosallanezhad**, R. Guo, H. Alvari, Alexander Nou, Huan Liu

Deep Reinforcement Learning-based Text Anonymization against Private-Attribute Inference **EMNLP'19**
Ahmadreza Mosallanezhad, Ghazaleh Beigi, Huan Liu

PATENT

Deep Reinforcement Learning-based Text Anonymization against Private-Attribute Inference pending
US patent application number: 63/114,285

AWARDS

Engineering Graduate Fellowship **2020**
Offered in recognition of extraordinary academic achievements

Winner of Sunhacks hackathon **2019**
Our team ended in 2nd place by building an application for voice-guided and easy grocery shopping

Awarded as Best Graduate Student in Artificial Intelligence **2018**
Offered in recognition of extraordinary academic achievements

Awarded as Best Graduate Student in Artificial Intelligence **2015**
Offered in recognition of extraordinary academic achievements

EXTRACURRICULAR ACTIVITIES

Program Committee (PC) member of ECML-PKDD 2022 conference **2022**
Program Committee (PC) member of EMNLP 2021 conference **2021**
Program Committee (PC) member of IJCAI 2021 conference **2021**
Program Committee (PC) member of NAACL-HLT 2021 conference **2021**
Invited Reviewer for ACL 2021 conference **2021**
Volunteer at EMNLP 2020 conference **2020**
Guest lecturer for Social Media Mining course **2020**
Program Committee (PC) member of AAAI 2020 **2020**
Volunteer at ACL 2020 conference **2020**
Reviewer at NeurIPS, ECML-PKDD, and ICWSM conferences **2020**
Reviewer at SNAM, KAIS, and TWEB journals **2020**
Winner of Sunhacks hackathon, 2nd place **2019**
Reviewer at KDD, SIGIR, and CIKM conferences **2019**