

Mansooreh Karami

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EDUCATION

- **Arizona State University** Arizona, USA
• *Ph.D. in Computer Engineering (Computer Systems), GPA: 4.0/4.0* Started Aug 2017
 - Selected Courses: Statistical Machine Learning (4.0/4.0), Deep Learning and Media Processing (4.0/4.0), Fundamentals of Statistical Learning and Pattern Recognition (4.0/4.0), Causal Inference (4.0/4.0)
- **Sharif University of Technology** Tehran, Iran
• *Master of Science in Computer Engineering (Artificial Intelligence)* 2011 - 2013
- **Shahid Chamran University of Ahvaz** Ahvaz, Iran
• *Bachelor of Science in Computer Engineering (Software)* 2006 - 2010

TECHNICAL SKILLS

- **Tools, Data Analysis and Programming Languages:** Python (PyTorch, Keras, NumPy, Pandas, and Scikit), MATLAB, R, Git, C/C++, PHP, and JavaScript.
- **Social Media Crawlers:** Python (Tweepy, Twython, and Telethon).
- **Other:** Tensorflow, Java, SQL, Microsoft Azure Cloud, Google Cloud Platform, IBM Watson Visual Recognition Service, Audacity.

WORK AND RESEARCH EXPERIENCES

- **Spotify** Fall 2022
Machine Learning Engineer Co-Op Boston, MA
- **Microsoft Corporation** Summer 2022
Applied Data Science Intern, C+AI Redmond, WA
- **Data Mining and Machine Learning Lab** August 2019 – Present
Graduate Research Assistant Tempe, AZ
 - Analytical Cognitive Enhancement Research (A-COGER)
 - * Understanding psychological and motivational factors of the users in fake news dissemination which can contribute to the development of a framework for identifying users who are likely to spread fake news. Our method outperformed the accuracy of the detection on benchmark datasets by average of %7. Programming Languages and Tools used: Twitter crawlers (Tweepy and Twython), LIWC feature extractor, HuggingFace Bert representation learning (in PyTorch), Statistical T-test, TSNE dimension reduction data visualization, and Scikit-learn's machine learning models such as SVM and Random Forest classification methods.
 - * Designing a cross-platform disinformation tracker by leveraging heterogeneous information from different platforms (Twitter, Parler, and Telegram) to facilitate the detection of disinformation. Programming Languages and Tools used: Telegram crawler (Telethon), Matplotlib, Plotly, and Seaborn data visualization.
 - ONR Social Media Research to Combat Disinformation and Foreign Influence
 - * Understanding the reasons behind the user's silence on social media and de-biasing the participation inequality (*On-going Project*). Programming Languages and Tools used: HuggingFace Bert and DistilledBert representation learning (in PyTorch), Keras and Scikit-learn in running and evaluating the baseline models, and Twitter crawlers (Tweepy and Twython).
- **Human-Computer Intelligence Lab** August 2017 - January 2018
Graduate Research Assistant Mesa, AZ
 - Mayo Clinic Ophthalmology Project. Designed and verified the effectiveness of a low cost, high resolution, and portable solution using Commercial-On-The-Shelf (COTS) components for imaging the anterior segment of the eye to support diagnosis and triage of an eye injury or disease by Mayo Clinic specialists.
 - The Norway/Dermatology Project. Designed and deployed an ML-based web application dashboard for doctors using in detecting malignant and benign skin lesions. Programming Languages and Tools used: IBM Watson visual recognition service, HTML, PHP, JavaScript, and CSS.
- **Independent Study** 2014 - 2016
Project Manager Remote
 - Collected a large-scale validated dataset for Persian which covers 3k speech utterances of 87 native-Persian speakers for 5 basic emotions as well as neutral state. Benchmarked the performance of standard classifiers on the dataset and compared the results to other languages. The dataset has been used in several papers and projects in the field as a low-resource emotional speech dataset. Programming Languages and Tools used: Audacity and Matlab.
- **Image Processing Lab** 2011 – 2013
Graduate Research Assistant Tehran, Iran
 - Developed an algorithm for 3D reconstruction of the human body using videos from multiple views. Designed an algorithm based on the vanishing points of XYZ plane and the homography of the reference plane to reconstruct a football player. Programming Languages and Tools used: Matlab and C++.

LEADERSHIP EXPERIENCES

- **The 15th International Conference on Web Search and Data Mining** February 2022
Lead Volunteer Tempe, AZ
 - Assigning, instructing, and guiding 25+ student volunteers for tasks related to managing the conference sessions.
 - Managing and monitoring the conference sessions and help desk.
- **Data Mining and Machine Learning Lab** Fall 2021-current
Lead Volunteer Tempe, AZ
 - Lab’s weekly 5-min talk sessions. Managing a wide variety of topics related to diversity, identity, mental health, time management, and research.
 - Lab facility administrator. Managing and maintaining lab’s GPUs, servers, and desktop machines among 15+ lab members as well as systematizing the library.
 - Head TA. Leading 4+ teacher assistants on social media mining course (CSE 472) as well as designing novel projects, problems, and assignments for the course.
- **AI4ALL × Arizona State University SummerUp Camp** June 2019 and June 2020
Lead Instructor Glendale, AZ
 - Designed and presented artificial intelligence & machine learning curriculum for 110+ high school students.
 - Designed step-by-step hands-on projects (Heart Disease Prediction and Fake News Detection) using Google Colaboratory (<https://github.com/mansourehk/AI4ALL-ASU>).
 - Designed the Google Classroom classwork and program surveys for the instructional team and students.

HIGHER EDUCATION EXPERIENCES

- **Arizona State University** 2018 - 2020
Teaching Assistant Tempe, AZ
 - Assisting in various online and in-person classes such as Social Media Mining, Computing Capstone I and II, Introduction to Engineering, Principle of Programming with C++, , Principle of Programming with Java, Design and Analysis of Algorithms.
- **Shahid Chamran University of Ahvaz** 2014 - 2016
Adjunct Lecturer Ahvaz, Iran
 - Instructing 300+ engineering students in computer and electrical engineering through lectures and laboratory experiences while managing 6+ TAs. Designing lectures, lab assignments, exams, projects, and homework.
 - Courses developed and thought: Design and Analysis of Algorithms, Introduction to Artificial Intelligence, Signals and Systems, Discrete Mathematics, Fundamental of Programming with C and Principles of Programming Lab.

PUBLICATIONS

CONFERENCES

- **M. Karami**, A. Mosallanezhad, M. V. Mancenido, and H. Liu (2020). “Let’s Eat Grandma”: Does Punctuation Matters in Sentence Representation? Submitted to ECMLL PKDD’22.
- A. Mosallanezhad, **M. Karami**, K. Shu, M. V. Mancenido, and H. Liu (2020). “Domain Adaptive Fake News Detection via Reinforcement Learning”. In Proceedings of the ACM Web Conference (WWW’22), France, 2022.
- **M. Karami**, T. H. Nazer, and H. Liu (2021). “Profiling Fake News Spreaders on Social Media through Psychological and Motivational Factors”, In Proceeding of the 32nd ACM Conference on Hypertext and Social Media (HT’21), Ireland, 2021.
- B. Jiang, **M. Karami**, L. Cheng, T. Black, and H. Liu (2021). “Mechanisms and Attributes of Echo Chambers in Social Media”, Working Paper, SBP-BRiMS’21.
- R. Moraffah, B. Moraffah, **M. Karami**, A. Raglin, and H. Liu (2020). Can: A causal adversarial network for learning observational and interventional distributions. arXiv preprint arXiv:2008.11376.
- T. H. Nazer, M. Davis, **M. Karami**, L. Akoglu, D. Koelle, and H. Liu (2019). “Bot Detection: Will Focusing on Recall Cause Overall Performance Deterioration?”. International Conference on Social Computing, Behavioral-Cultural Modeling, Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS’19), Washington DC, USA, 2019.
- A. Gaffar, D. Patel, P. Pallagi, R. Gaffar, and **M. Karami** (2017). A Tele-Triage Application Design for Mobile Health at Mayo Clinic, 4th Annual Conference on Computational Science and Computational Intelligence, The 2017 International Symposium on Health Informatics and Medical Systems (CSCI-ISHI’17), Las Vegas, Nevada, USA, 2017.
- A. Gaffar, D. Patel, P. Pallagi, R. Gaffar, and **M. Karami** (2017). Identifying and Mitigating Design Challenges of Ophthalmology Tele-medicine at Mayo Clinic, 4th Annual Conference on Computational Science and Computational Intelligence, The 2017 International Symposium on Health Informatics and Medical Systems (CSCI-ISHI’17), Las Vegas, Nevada, USA, 2017.
- **M. Karami**, R. Afrouzian, S. Kasaei, H. Seyedarabi (2014). Multiview 3D Reconstruction based on Vanishing Points and Homography, Telecommunications (IST), 7th International Symposium on IEEE, 2014.

JOURNALS

- R. Moraffah, P. Sheth, **M. Karami**, A. Bhattacharya, Q. Wang, A. Tahir, A. Raglin, H. Liu (2021). Causal Inference for Time series Analysis: Problems, Methods and Evaluation. Knowledge and Information Systems Journal.
- K. Shu, A. Bhattacharjee, F. Alatawi, T. H. Nazer, K. Ding, **M. Karami**, H. Liu (2020). “Combating Disinformation in A Social Media Age”. WIREs Data Mining and Knowledge Discovery.
- R. Moraffah, **M. Karami**, R. Guo, A. Raglin, and H. Liu (2020). “Causal Interpretability for Machine Learning-Problems, Methods and Evaluation”. Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD).

HONORS AND AWARDS

- GHC Student Scholarship AZ, USA
Grace Hopper Celebration 2022
- First Place in Graduate Student Poster Contest, Proposed Research Category ([link](#)) AZ, USA
Arizona State University, Institute for Social Science Research (ISSR) April 2022
- Iranian-American Alumni Academic Scholarship AZ, USA
Arizona State University 2022-2023
- SCAI Doctoral Fellowship (for excellent research progress and strong academic work) AZ, USA
Arizona State University, School of Computing and Augmented Intelligence March 2022
- ACM WSDM 2022 Outstanding Service Award Virtual, USA
The 15th International Conference on Web Search and Data Mining February 2022
- WILEY Top Cited and Downloaded Article For “Combating Disinformation in a Social Media Age” USA
Wires Data Mining and Knowledge Discovery 2020-2021
- Second Place in Graduate Student Poster Contest, Completed Research Category ([link](#)) AZ, USA
Arizona State University, Institute for Social Science Research (ISSR) April 2021
- WiML Conference Travel/Registration Funding Online Virtual Event
International Conference on Machine Learning (ICML) July 2020
- Herbold ASU Graduate Engineering Scholarship (for outstanding engineering graduate students) AZ, USA
Arizona State University 2019 – 2020
- Ira A. Fulton Schools of Engineering, Grad Fellowship (for extraordinary academic achievements) AZ, USA
Arizona State University 2018 – 2020
- Ferdinand A. Stanchi Fellowship (for extraordinary achievements and/or in support of your research) AZ, USA
Arizona State University 2019

COMMUNITY SERVICE

- **PC Member:** IEEE CogMI, ECML-PKDD 2021–Present
- **Reviewer:** BigData, TECHIS, TKDE, SNAM, ASU GPSA Awards 2019–Present
- **Subreviewer:** CIKM, SBP-BRiMS, KDD, ASONAM 2019–Present
- **Volunteer:** Lead Volunteer at WSDM 2022, KDD 2021, 2019 ASU WiCS Programming Competition 2019–Present
- **Mentoring:** Bohan Jiang (O2O project), Faisal Alatawi (Echo chamber detection) 2021–Present