Amirmohammad Mohammadi

College Station, Texas • (979) 436-5736 • amir.m@tamu.edu • LinkedIn • Website

EDUCATION

Texas A&M University, College Station, TX — May 2027 (anticipated)
Doctor of Philosophy in Computer Engineering

Sharif University of Technology, Tehran, Iran — February 2021
Master of Science in Electrical Engineering

University of Tabriz, Tabriz, Iran — September 2018
Bachelor of Science in Electrical Engineering

JOURNAL PAPERS

1. Sel, K., **Mohammadi, A.**, Pettigrew, R. I., & Jafari, R. (2023). Physics-informed neural networks for modeling physiological time series for cuffless blood pressure estimation. *Nature NPJ Digital Medicine*, 6(1), 110. [link]
2. **Mohammadi, A.**, Fakharzadeh, M., & Baraeinejad, B. (2022). An integrated human stress detection sensor using supervised algorithms. *IEEE Sensors Journal*, 22(8), 8216-8223. [link]

RESEARCH EXPERIENCE

Texas A&M University, College Station, TX — January 2024 – Present
Graduate Research Assistant, Advisor: Prof. Joshua Peeples

- Machine learning development for processing and classifying audio data.
- Parameter efficient transfer learning for foundation transformer architectures.

Texas A&M University, College Station, TX — September 2022 – December 2023
Graduate Research Assistant, Advisor: Prof. Roozbeh Jafari

- Physiological signals analysis and prediction with AI algorithms.
- Physics-informed neural networks for modeling cardiovascular dynamics with reduced ground truth.

Sharif University of Technology, Tehran, Iran — July 2019 – February 2021
Graduate Student, Advisor: Prof. Mohammad Fakharzadeh

- Developed a low-power sensor for human mental stress diagnosis using supervised algorithms.
- Microcontroller programming, schematics, PCB design, and collecting data.

PROFESSIONAL SERVICE

2024 IEEE International Conference on Acoustics, Speech, and Signal Processing — Fall 2023
Helper/Area Chair - Applied Signal Processing Systems

- Assigned and managed the peer-review process for a high standard scholarly evaluation.

2023 IEEE International Conference on Acoustics, Speech, and Signal Processing — Spring 2023
Reviewer

- Conducted reviews of three submitted papers and provided constructive feedback to authors.

POSTER PRESENTATIONS

1. **Mohammadi, A.**, Masabarakiza, I., Barnes, E., Carreiro, D., Van Dine, A., & Peeples, J. (2024, April). Investigation of Time-Frequency Feature Combinations with Histogram Layer Time Delay Neural Networks. Poster session presented at the *Electrical & Computer Engineering Graduate Spring Poster Event*, College Station, TX.
2. **Mohammadi, A.**, Sel, K., Pettigrew, R. I., & Jafari, R. (2023, October). Physics-Informed Neural Networks for Modeling Cardiovascular Dynamics. Poster session presented at the *2023 AI in Health Conference*, Houston, TX.

MANUSCRIPTS UNDER REVIEW

1. **Mohammadi, A**., Masabarakiza, I., Barnes, E., Carreiro, D., Van Dine, A., & Peeples, J. (2024, December). Investigation of Time-Frequency Feature Combinations with Histogram Layer Time Delay Neural Networks. *2024 International Conference on Machine Learning and Applications (ICMLA)*, Miami, FL.
2. **Mohammadi, A**., Kelhe, T., Carreiro, D., Van Dine, A., & Peeples, J. (2024, December). Transfer Learning for Passive Sonar Classification using Pre-trained Audio and ImageNet Models. *2024 International Conference on Machine Learning and Applications (ICMLA)*, Miami, FL.

TEACHING EXPERIENCE

Sharif University of Technology, Tehran, Iran Fall 2019

- Grading the assignments of Principles of Electronics course and resolving the disputes

COMPUTATIONAL SKILLS

Python ● PyTorch (Lightning) ● Machine Learning ● Deep Learning ● Data Mining ● Signal Processing

LANGUAGES

English (proficient) ● Azeri (native) ● Farsi (native/bilingual)