# Dorsa E.P.Moghaddam

## Education

2019-2024 **Ph.D., Electrical and Computer Engineering**, *Rice University, Houston, Texas*

2019-2021 **M.S., Electrical and Computer Engineering**, *Rice University, Houston, Texas*

- GPA : 3.86/4

2014-2019 **B.Sc., Electrical Engineering**, *Sharif University of Technology, Tehran, Iran*

- GPA : 17.57/20

2010-2014 **Physics and Mathematics Diploma**, *Farzanegan High school (NODET), Ghayen, Iran*

- GPA : 19.87/20

## Research Interests

Machine Learning and AI, Signal Processing, Neuroengineering

## Current Research

Finding the optimal set of heart pacing parameters using interpolation-based semi-supervised learning.

## Honors and Awards

- Recipient of the Society of Iranian-American Women for Education (SIAWE) scholarship, 2021
- Member of the Iran's National Elite Foundation
- Ranked 6th among more than 100,000 applicants in the nationwide university entrance exam in Pure English, 2014
- Ranked 4th among more than 100,000 applicants in the nationwide university entrance exam in Math, 2014

## Publications

- **D.E.P.Moghaddam**, Sameer A. Sheth, Zulfi Haneef, Jay Gavvala, Behnaam Aazhang, "Epileptic Seizure Prediction Using Spectral Width of The Covariance Matrix" (Under Review)
- F.Habibollahi-Saatlou, M.Khajehnejad, **D.E.P.Moghaddam**, H. Mohammadzade, "High Accuracy Classification of Neural Activity at Different Levels of Luminance Contrast In Primary Visual Cortex of Awake Monkey" (In Progress)

## Teaching Experiences

- Machine learning
- Learning from sensor data
- Introduction to random processes and applications

## Selected Courses

- Artificial intelligence and bio computing
- Machine learning

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- Introduction to deep learning
- Design and analysis of algorithms
- Learning from sensor data
- Data science and dynamical systems
- Scientific computing
- Information theory
- Introduction to random processes

## Selected Academic Projects

- Finding the optimal set of heart pacing parameters using interpolation-based semi-supervised learning.
- Epileptic seizure prediction using spectral width of the covariance matrix.
- Decode classification of neural prosthetic system performance using plan and pre-movement activity.
- Model reduction using Loewner framework and Balanced Truncation: approximation of an Euler-Bernoulli beam model and the Bessel function in the complex plane.
- High accuracy classification of neural activity at different levels of luminance contrast In primary visual cortex of awake monkey.

## Skills

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|---|---|
| Coding | Python, Matlab, C, C++, Java |
| Frameworks | Keras (Primary), Scikit-Learn (Primary) |

## Language

- Persian (native), English (fluent), German (beginner), Arabic (familiar)