SHIRIN SHOUSHTARI

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EDUCATION

Master of Science in Electrical Engineering

Winter 2021

Sharif University of Technology (ranked as 1st university in Iran based on QS Ranking)

Thesis Title: "Designing EEG-based Deep Neural Network for Analysis of Functional and Effective Brain Connectivity"

GPA: 3.83/4

Bachelor of Science in Electrical Engineering

Summer 2017

Sharif University of Technology

Thesis Title: "Two-phase Cooperative Jamming and Beamforming for Physical Layer Secrecy"

RESEARCH INTERESTS

- EEG Signal Processing
- Data Science
- Machine Learning
- Deep Neural Network
- Graph Neural Network

RESEARCH EXPERIENCE

Graduate Research Assistant

2018-Present

Neuroscience Lab

Department of Electrical Engineering, Sharif University of Technology

Research Topic: "Emotion Classification using Functional and Effective Brain Connectivity of EEG signals", "A Machine Learning Algorithm for EEG classification using Image"

Undergraduate Intern

Summer 2017

Telecommunication Lab

Telecommunication Company, Tehran

Research Topic: "Telecommunication Network function and evaluation"

Undergraduate Research Assistant

2015-2017

Communication Lab

Department of Electrical Engineering, Sharif University of Technology

Research Topic: "Physical layer secrecy using beamforming and jamming techniques"

HONORS, AWARDS, AND LEADERSHIP EXPERIENCES

- Ranked Top 0.01% among approximately 300,000 participants in the National Entrance Examination for Iranian Universities

 Summer 2012
- Ranked Top 0.1% among approximately 17,000 participants in the National Entrance Examination for M.Sc. degree

 Summer 2018
- Member of National Elites Foundation

2012-Present

Deans honorary award for voluntarily work in Student Union by head of Sharif's EE department (Dr. Vakilian)

Fall 2014

• Member of Resana Group for voluntarily work in Sharif's EE department

2013-2015

 Honorary award for voluntarily work in "Technologies of Power Electronics" Seminar by the head of Sharif's Power Electronics EE department (Dr. Tahami)
 Winter 2014

Academic Projects

Ongoing Project, Master thesis

Fall 2020

"Designing EEG-based Deep Neural Network for Analysis of Functional and Effective Brain Connectivity" Advisor: Hoda Mohammadzade, Assistant Professor, Arash Amini, Associate Professor

Machine Learning Algorithm for EEG classification with visual stimuli

Fall 2018

Advisor: Hoda Mohammadzade, Assistant Professor

Machine Learning Algorithm for classification of SEED & DEAP datasets

2018-2020

Advisor: Hoda Mohammadzade, Assistant Professor

• Physical Layer Secrecy in Communication channels Advisor: Hamid Behroozi, Associate Professor 2015-2016

- Foundation of Machine learning (18.6/20)
- Statistical Learning (17/20)

SELECTED COURSES

- EEG Processing (16.6/20)
- Medical Imaging (19.3/20)
- Causal Inference (16.7/20)
- Communication Seminar (19.2/20)

TEACHING EXPERIENCE

Teaching Assistant Fall 2019

Homework Designer and Teaching Assistant, "Statistical Learning"

Instructor: Hoda Mohammadzade, Ph.D.

Teaching Assistant Fall 2020

Homework Designer and Teaching Assistant, "Machine Learning"

Instructor: Saber Saleh Kaleybar, Ph.D.

TECHNICAL SKILLS

Engineering Software

MATLAB and Simulink, Microsoft Project.

Familiar with: Microcontrollers, Proteus, Mathematica, PSpice, Quartus, HSPICE, Altium Designer, Minitab.

Programming Language:

Python, R, C/C++, Latex, Verilog HDL

LANGUAGE SKILLS

Persian: Native
French: Intermediate
English: Fluent
TOFFI IRT Score: 11

TOEFL IBT Score: 112 GRE General Test: 329

Quantitative Reasoning: 170Verbal Reasoning: 159