Esmaeil Farhang

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EXPERIENCE

HiBrainy (Roham AI)
JUL 2019 - now

Machine Learning Engineer

- **Developing the TTS(Text to Speech) technology for English, French, and Persian and deploying services in the HiBrainy Platform.**
- **R&D on face anti-spoofing, liveness detection, head pose estimation, face depth estimation, and face emotion detection.**
- **Developing the VAD(Voice Activity Detection) for Android.**

Namava - University of Tehran
June 2018 - SEP 2108

Data Scientist

- **Participation in the Designing and Implementation Movie recommender system for Namava.**

EDUCATION

University of Tehran
SEP 2017 - SEP 2020

Master of Science - MS, Artificial Intelligence

Courses:

- Machine Learning
- Pattern Recognition
- Statistical Inference
- Reinforcement Learning
- Deep Learning with Applications
- Data Analytics
- Social Networks
- Advanced Robotics

Shiraz University
SEP 2011 - SEP 2106

Bachelor of Science - BS, Mathematics and Computer Science

Notable Courses:

- Statistical Methods
- Dynamic Systems
- Mathematical Statistics
- Numerical Linear Algebra
- Linear Algebra (1,2)
- Optimization
- Stochastic Processes
- Design Algorithms

PROGRAMMING SKILLS

- **Programming Languages**: Python, C/C++, R
- **Deep Learning Frameworks**: Pytorch, Tensorflow, Keras
- **Speech Recognition and Synthesis Toolkit**: Kaldi, Espnet, Marytts, HTS
- **Other Languages**: Familiar with Java, Android, and Haskell Languages
- Linux / Git / Docker

SELECTED ACADEMIC PROJECTS

Deep Learning with Applications
Spring 2018

- Implementation Neural Network Combined with RNN and CNN and Use CTC loss for Librispeech data set for converting speech to text.
- Implementation parallel structure Gaussian mixture model -hidden Markov model (GMM-HMM) using the Viterbi and Boum- Welch algorithm, and compare with the gaussian mixture model - Deep Neural Network (GMM - DNN) on Spoken Arabic Digit Data Set.

Pattern Recognition
Fall 2017

- Designing and implementation of traditional machine learning classifiers for different problems.

Machine Learning
Fall 2017

- Implementation and comparison of different RL methods such as Q-Learning and SARSA in multi-state environments and Continuous RL methods such as RBF and Fuzzy.

Social Networks
Fall 2018

- Creating the relationship graph between the spiking activity of hundreds of neurons in mouse somatosensory cortex slice cultures, using the transfer entropy, Granger causality, and cross-correlation methods and comparing these methods using the social network analysis tools of Python and Matlab.

Data Analytics
Fall 2018

- Investigating the Variable of Social Trust and Comparing its Effective Factors on the Basis of a Survey on Iranian People From 1999 to 2009 for Descriptive Analytics Project with python.
- Predicting the Saccadic Targets with Individual and Population Neural Response for Predictive Analytics Project with python.

Statistical Inference

Spring 2018

- Analyzing and Visualizing the FIFA Player dataset with R.

FIELDS OF INTEREST

- Machine Learning and Deep Learning
- Machine Vision
- System and Computational Neuroscience
- Data Science
- Speech Processing
- NLP