


MOZHGAN SALIMIPARSA

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EDUCATION

University of Western Ontario

Sep. 2018 – Sep. 2022

Ph.D. Candidate in Computer Science

London, CA

- **Thesis:** Design and Development of an Explainable AI System for HealthCare Using Visual Analytics
- **Teaching Assistant:** Artificial Intelligence, Data Analysis, Algorithms, Information Systems, Multimedia
- **Coursework:** Data Science, Data Analytics, Topics in Health Informatics, Information Visualization

McMaster University

Apr. 2016 – Sep. 2017

Visiting Researcher

Hamilton, CA

- **Research:** Developed Accurate Signal Processing Approaches for Denoising, Simulation, and Anomaly Detection

University of Tehran

Sep. 2013 – Sep. 2016

M.Sc in Health Information Technology

Tehran, IR

- **Thesis:** Design and Implementation of a Portable Fetal Health Monitoring System
- **Coursework:** Neural Networks, Machine Learning, Artificial Intelligence, Signal Processing, Wireless Sensor Networks

Summary of Qualifications

- Hands-on experience with relational databases, SQL and MongoDB
- Highly skilled in deep learning for Natural Language Processing
- Proficient in programming skills in Python, R, and MATLAB
- Expert in problem solving and algorithm development
- Working knowledge of machine learning and/or predictive modeling
- Adaptable and open to change with strong collaboration and presentation skills

Selected Projects

Question Answering System |

Pytorch, Flask, Spacy, Pickle

- Designed an NLP preprocessing pipeline for QA based on factoid question answering approach
- Implemented a user interface for information retrieval using Flask
- Developed a machine reading comprehension model based on BERT

Face Aging Using Generative Adversarial Networks |

GANs, TensorFlow, Numpy

- Implemented a face detector
- Trained with four GPUs on single node

Object Detection in Image by Using Deep Learning |

CNN, Keras, TensorFlow, Numpy

- Implemented a Mask R-CNN on Keras, and TensorFlow
- Developed an object detection via region-based fully convolutional networks

Sentiment Analysis on Twitter Data |

Word2Vec, TfidfVectorizer, Glove

- Applied Word2Vec, TfidfVectorizer, Glove, and CountVectorizer to get different input for networks
- Developed LSTM and CNN networks to calculate polarity values of individual tweets on climate change

Speech Emotion Recognition |

Autoencoder, Wave, Matplotlib, Plotly

- Finetuned an autoencoder network for speech emotion recognition using spectrogram of the utterances as input

Fake News Detection Using Ensemble Learning |

LSTM, Bert, CNN, Pandas

- Performed TFIDF vectorization on text samples to determine similarity between texts for classification

Skills

Languages: Python, C/C++, R, Matlab, PHP, SQL

Web Development: React, JavaScript, D3, HTML/CSS

Technology: Git, AWS, GCP, Docker, Unity, Hadoop, L^AT_EX, MongoDB