Mozhgan Salimiparsa

Toronto, ON

Summary

Ph.D. in Artificial Intelligence with a strong foundation in machine learning algorithms and deep neural networks. Proficient in Python, TensorFlow, and PyTorch. Experienced in Explainable AI (XAI) techniques and adept at data visualization, applying my academic knowledge to real-world challenges.

Education

University of Western Ontario

Sep. 2018 - Sep. 2023

Ph.D. Candidate in Computer Science

London, CA

Hamilton, 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

McMaster University

Apr. 2016 - Sep. 2017

• Research: Developed signal processing techniques for phonocardiograph data, including simulation and anomaly detection

Work Experience

Visiting Researcher

Data Scientist Nomad. London. Canada

Nov. 2022 - Present

- Modeled and analyzed eye-tracking data to uncover insights into the correlation between eye movements and neurodevelopmental disorders.
- Collaborated with a multidisciplinary team of developers, neuroscientists, and researchers to design and implement eve-tracking-based interventions.
- Utilized Unity and C# programming to create 3D games and applications for analyzing eye-tracking data.
- Utilized version control and facilitated code collaboration using Plastic SCM for virtual reality projects.

Machine Learning Engineer Spassmed Inc., Toronto, Canada

Jan. 2023 - Jul. 2023

- Led a team of 5 data scientists and engineers in deploying Casual Inference models for **Vector Institue**
- Mentored junior team members and facilitated knowledge-sharing sessions on explainable AI.
- Authored a paper explaining the machine learning model employed by the team for predictive modeling in sepsis detection.

Research Assistant Western University, London, Canada

Sep. 2018 - Sep. 2023

- Designed and deployed a visual analytic tool to assess bias within a clinical decision support system.
- Directed the development and implementation of a triaging system for ICU admission utilizing explainable AI techniques, including Shapley values and counterfactual explanations.
- Devised an interactive system to analyze Twitter users' behavior and relationships using NLP.

Skills

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

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

Technology: Git, AWS, GCP, Docker, Unity, Hadoop, MongoDB

Technical Expertise: Machine Learning, Deep Learning, Statistical Analysis, NLP, Databases

Projects

Question Answering System | Pytorch, Spacy, Pickle

2019

Designed an NLP preprocessing pipeline for QA based on factoid question-answering approach.

Face Aging Using Generative Adversarial Networks | GANs, TensorFlow, Numpy

2018

Trained with four GPUs on a single node.