Ehsan Majidi

AI Scientist,
Deep Learning Researcher

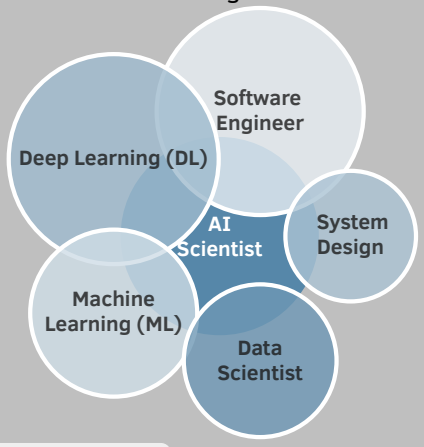
Troy, MI, 48098
(248)635-9472
ehsanjmajidi@gmail.com
www.linkedin.com/in/ehsan-majidi

Profile

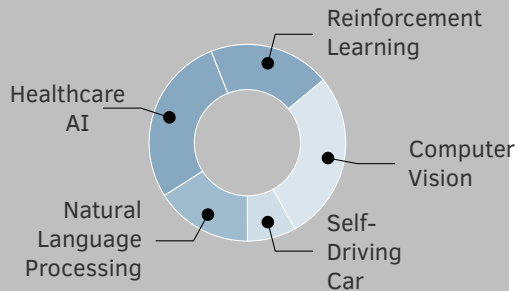
With over 10 years of research experience in Machine/Deep learning, Deep Reinforcement Learning, Artificial Intelligence, and Signal/Image processing, 3 years of technical lead, and over 5 years of software experience in automotive and healthcare industries, I have an extremely well-developed Deep Learning knowledge and the ability to lead/participate in R&D and/or R&D to production projects.

Skills

- Python, C/C++, JavaScript
- Pytorch , Theano, Tensorflow, and Keras
- Pandas, NumPy, OpenCV, and scikit -learn
- Robot Operating System (ROS)
- Systems architecture, Software development, and Troubleshooting
- Healthcare AI
- Computer vision
- Self-Driving car: Perception, Decision, and Control
- Team leadership, Project Management and Leading technical teams



Deep Learning



Working Experience

2017 – currently
Lead Artificial Intelligence Scientist — Seraph Biosciences Inc.
› Lead, design and develop Deep Learning projects for healthcare AI in particular pathogen diagnosis.
› Conduct applied research on Deep learning algorithms.
› Design strategic plan for AI features to support customer's needs.
› Design data pipeline to analyze biological data acquired by Raman Spectroscopy.

2016 – 2017
Software Engineer — Delphi Automotive
› Played a key role in designing algorithm and autocoded software for subsystems such as, Tooth Error Correction Diagnostic and the fuel rail pressure Diagnostic.
› Led and mentored a group of 3 engineers to develop diagnostic systems.
› Monitored and assessed issues that arose with clients, ensuring immediate resolution which promoted stronger relationships and resulted in more projects.
› Worked closely with other departmental peers to develop high availability solutions for mission-critical applications.

2015 – 2016
Software Engineer — Infotree Service Inc (Delphi Automotive)
› Administered the software product requirement and specification documents.
› Supported software developments and programmed software in accordance with defined development procedures.
› Identified and solved software build problems, resulting in more efficient and cost effective products.

2013 – 2015
Graduate Assistant — Wayne State University
› Taught courses for up to 25 undergraduate students in Computer science and Electrical and Computer Engineering department such as introduction to computer science (C++), and Electrical Circuit Lab.
› Designed and graded quizzes and exams and address students questions. Wrote course materials such as syllabus, homework.
› Studied and evaluated 20-30 articles per week and conducted research on various projects. Wrote and summarized results as technical reports.

Education

2013 – 2018
Ph.D. in Electrical Engineering — Wayne State University
4/4 GPA, Emphasis in Deep Learning

2008 – 2011
M.Sc. in Electrical and Computer Engineering — University of Tehran
17.19/20 GPA, Emphasis in Biomedical Engineering

2004 – 2008
B.Sc. in Electrical and Computer Engineering — Shiraz University
The emphasis in Signal Processing

Projects

A deep learning approach to identify pathogens using Raman Spectroscopy
› Developed an end-to-end deep neural network for identifying the pathogens.
› Implemented Convolutional neural networks, fully and partially connected neural network using Theano and Python libraries.
› Developed data parallelism algorithm for four GPUs with the use of ZeroMQ.

Virtual adversarial training to improve generalization
› Trained models using VAT to reduce the model's probability of correct classification.
› Test error is improved by 4.6% using virtual adversarial training.

Semantic Segmentation
› Labeled the pixels of a road in images using a Fully Convolutional Network (FCN).
› Implemented FCN based on VGG16 using TensorFlow.

Functional connectivity of EEG
› Modeled connectivity among cortex EEG sources using Graph theory.
› Estimated the sources of EEG signal on the cortex of a brain by inverse problem algorithms using Matlab.