Yasmin Niknam

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EDUCATION

Master of Science in Computer Science

Present

Western University, London, ON

GPA:4/4

Bachelor of Science in Electrical Engineering

2016-2021

Minor in Software Engineering (GPA: 18.43/20)

University of Tehran, Tehran, Iran

GPA:18.25/20

High School Diploma in Mathematics and Physics

2012-2016

 $Farzanehgan 1\ High\ School,\ Ahwaz,\ Iran$

GPA:19.83/20

HONORS AND AWARDS

- Received Mitacs Accelerate Fellowship of 15K CAD
- Received the University of Tehran M.Sc. Fellowship Award (exempted from the graduate entrance exam)
- Received Best Undergraduate Thesis Award from the University of Tehran
- Ranked 8th (among top 10 percent) out of 120 undergraduate students, School of Electrical and Computer Engineering, University of Tehran
- Ranked 111th among more than 200,000 participants in Iranian National University Entrance Exam in 2016
- Member of Iran's National Elites Foundation

ACADEMIC RESEARCH EXPERIENCE

Semi-Supervised Domain Adaptation for Regression Task

Present

Designing and implementing a model capable of learning from a source domain and then perform well on a second domain called target domain.

Paragraph Generation for Untrimmed Video

Present

Describing multiple events in untrimmed news videos from Thomson Reuters with descriptive paragraphs. (in collaboration with Vector Institute)

Vehicle Instance Localization and Counting

Vinter 2022

Designing a model capable of localizing and counting vehicles in an image taken from a drone and annotating real-world data for the project using Amazon Mechanical Turk tool

Cross-Modal Generation

Fall 2021

Generating corresponding audio of a video using for a variety of categories state-of-the-art deep learning models and transformers. Image Restoration Fall 2020

Restoring old photos that suffer from severe degradation through training two variational autoencoders (VAEs) to respectively transform old photos and clean photos into two latent spaces.

Multiple Object Tracking

Fall 2020

Tracking people in crowded scenes by exploiting the bounding box regression of an object detector to predict the position of an object in the next frame, thereby converting a detector to a tracktor.

Dialogue Generation

Fall 2020

Implementing RNN, LSTM, and GRU Models to generate text files and conversations.

Price Estimation

Spring 2020

Implementing a Regression Model to estimate cellphone prices based on customers' data.

COMPUTER SKILLS

Programming

Python, MATLAB, C/C++, Java

Libraries

Pytorch, Tensorflow, Keras, Weights and Biases, Pandas, Numpy, Scikit-learn, Matplotlib, OpenCV, Slurm Workload Manager, Git **Typesetting**

Word, LATEX

TEACHING AND WORK EXPERIENCE

Internship at Mitacs 2021-2022

Implementation of a three-part model which can generate heatmaps of the cars commuting in a parking lot using data gathered from a drone.

Internship at HARA AI

2019

Implementation of a system to recognize Persian Music and Singers using Machine Learning methods.

Teaching Assistant at University of Western Ontario

2021 - 2022

 $\rm May\ 2017$

Holding lab sessions, grading assignments, proctoring and grading exams for courses Computer Science Fundamentals I and II.

Teaching Assistant and Supervisor at University of Tehran

2018-2022

Designing assignments, exams, and projects, grading exams, holding lab sessions, and managing classes in various courses namely Digital Logic Design, Linear Control Systems, Computer Programming, Digital Signal Processing, Engineering Mathematics, Engineering Probability and Statistics, Communication Systems, and Intelligent Systems.

LANGUAGES AND TESTS

Persian (native), English (fluent)

• IELTS Academic: 8 (Reading: 8.5, Listening: 8.5, Speaking: 7.5, Writing: 6.5)

EXTRACURRICULAR ACTIVITIES

Musical Studies 2010-Present

Focusing on a classical piano repertoire for over 10 years

Tedx Keshavarz Boulevard

Working as a member of partnership in Tedx Keshavarz Boulevard