Amir Hesam Salimnia

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🏛 EDUCATION

- **Master of Science in Computer Science** , Western University, London, ON   Present
- **Bachelor of Science in Electrical Engineering** , University of Tehran, Tehran GPA : 18.78/20   Sept 2016 – Dec 2020
     Minor in Computer Engineering, University of Tehran, Tehran GPA : 17.92/20

🏆 HONORS AND AWARDS

- Silver Medal in **Iranian National Physics Olympiad**   2015
- Member of **Iran's National Elites Foundation**   2015
- **M.Sc. Fellowship Award** as an exceptional talented student, University of Tehran   2020
- Received **Best Thesis Award**, University of Tehran   2021
- Ranked 2nd among about 120 undergraduate students of Electrical Engineering, University of Tehran   2021
- **Vector Scholarship In Artificial Intelligence**   2021

🖥 RESEARCH EXPERIENCE AND NOTABLE PROJECTS

Music Retrieval   Summer 2019

Implementing an **identification system** for **Persian Music** based on Pitch-frequency histogram and **Metric Learning** methods

Mobile Pricing   Spring 2020

Building **Regression Model** on mobile phone data set to fit an approximate estimation for the price model

Video Prediction   Fall 2020

Predicting next frames of a video using previous frames by **Recurrent Layers** such as RNN, LSTM and GRU

B.Sc. Thesis   Fall 2020

Implementing and improving a tracking system to solve **Multiple Object Tracking** paradigm in crowded scene using **CNN**s

Image Restoration   Fall 2020

Recovering low-quality images using domain translation network which translates the latent space of degraded photos into clean ones.

Multi Resolution Memory for Anomaly Detection (MRMAD)   Fall 2021

Proposing new method to detect open set anomaly with **distilling multi-resolution knowledge** into **memory**

Cross Modal Generation   Fall 2021

Generating audio based on the visual information from video using VQ-VAE and transformers.

📕 TEACHING EXPERIENCE

Spring 2019 | **Teaching Assistant**
Fall 2019 | *Linear Control Systems : Instructor Prof. A. Adhami*, *Prof. F. Bahrami*
| ❯ Design projects and graded them.

Fall 2019 | **Teaching Assistant**
Spring 2020 | *Engineering Mathematics : Instructor Prof. A. Tale-Masouleh*
| ❯ Design assignments, oversaw students' assignments, and graded them.

Fall 2019 Spring 2020	Teaching Assistant
	Introduction to Computer and programming : Instructor Prof. M.R. Hashemi , Prof. H. Moradi
	› Design assignments, oversaw students' assignments, and graded them.

Fall 2019 Spring 2020	Teaching Assistant
	Engineering Probability and Statistics : Instructor Prof. B. Bahrak , Prof. M. Abolghasemi
	› Design assignments, oversaw students' assignments, and graded them.

Spring 2020	Teaching Assistant
	Digital Signal Processing : Instructor Prof. M.A. Akhaee
	› Design assignments, oversaw students' assignments, and graded them.

Fall 2020	Teaching Assistant
	Industrial Control : Instructor Prof. A. Kalhor
	› Design assignments, oversaw students' assignments, and graded them.

Fall 2020	Teaching Assistant
	Intelligent Systems : Instructor Prof. R. Hosseini
	› Design projects, oversaw students' assignments, and graded them.

Fall 2021	Teaching Assistant
	Computer Science Fundamentals I(CS1026) : Instructor Prof. M. Bauer
	› Oversaw students' assignments, and graded them. Hold lab sessions.

Winter 2022	Teaching Assistant
	Computer Science Fundamentals II(CS1027) : Instructor Prof. R. Solis-Oba
	› Oversaw students' assignments, and graded them. Hold lab sessions.

🎓 SELECTED COURSES

Engineering Probability and Statistics, Systems Analysis, Advance Programming, Digital Signal Processing, Linear Algebra, Data Structure and Algorithms, Data and Analysis of Algorithms, Intelligent Systems, Artificial intelligence, Operations Research, Neural Networks, Brain Inspired AI, AI Ethics, Unstructured Data, Advanced AI

☰ COMPUTER SKILLS

Programming	Python(Advanced), Pytorch(Advanced), Keras(Advanced), TensorFlow(Intermediate), C/C++(Advanced), MATLAB(Advanced), Java(Intermediate), Git(Intermediate), HTML(Intermediate), Django(Intermediate), CSS(Intermediate), Bootstrap(Intermediate)
Hardware Programming	Verilog(Intermediate), AVR(Intermediate), Arduino(Intermediate), ARM(Intermediate)

🌐 LANGUAGES

English *Fluent*
› IELTS (Academic) : 7 (Listening : 7.5, Writing : 6, Reading : 8, Speaking : 7)