

As a machine learning researcher with a strong math background, I have been involved with different projects in various areas including deep learning, computer vision, adversarial machine learning, natural language processing, and probability calibration.

EXPERIENCE

York University Machine learning researcher <ul style="list-style-type: none">Proposed a calibration model that outperformed state-of-the-art models by a small margin in terms of ECE.	Jan. 2021 – Present Toronto, Canada
Amirkabir University of Technology, NLP Lab NLP researcher (Github repo) <ul style="list-style-type: none">Developed a question answering system based on a knowledge-base in Python.SVM and CNN classification models used to classify questions achieved 96% accuracy and F1-score of 92.7%.	Jan. 2020 – Aug. 2020 Tehran, Iran
National University of Singapore, Data Privacy and Trustworthy Machine Learning Research Lab Computer vision researcher (Github repo) <ul style="list-style-type: none">Developed a plugin that obscures images for increased privacy using adversarial attacks, with a 35% success rate.Performed <u>facial recognition attack</u> on FaceNet and <u>face detection attack</u> on SSD MobileNet V1 using PGD.Used <u>image augmentations</u> to attack black-box models increased success rate by 1.5x.	Jul. 2019 – Sep. 2019 Singapore
Dialog Deep learning R&D intern (Clustering github repo), (Language model github repo) <ul style="list-style-type: none">Developed a Persian question answering system in Python Tensorflow.Expanded dataset by clustering questions with LDA and using answers interchangeably.LSTM Seq2Seq model with <u>Luong-style attention</u> mechanism is used to generate answers.	Jul. 2018 – Dec. 2018 Tehran, Iran
Amirkabir University of Technology, Cognitive Robotics Lab Research assistant <ul style="list-style-type: none">Developed an autonomous exploration algorithm for robots that won 2nd place in RoboCup 2017.<u>Object detection</u> task is performed to detect victims using YOLO model.	Oct. 2016 – Sep. 2017 Tehran, Iran

EDUCATION

York University M.Sc. in COMPUTER SCIENCE, GPA: A+	2021-2023 (Expected) Toronto, Canada
Amirkabir University of Technology (Tehran Polytechnic) B.Sc. in COMPUTER (SOFTWARE) ENGINEERING, GPA: 3.9/4	2015-2020 Tehran, Iran

SKILLS

Languages	Python, Java, C++, JavaScript
Machine learning	TensorFlow, PyTorch, OpenCV, Keras, Numpy, Pandas, Scikit-learn, NLTK, Scipy, JAX
Databases	MySQL, PostgreSQL, MongoDB
Other Tools	Git, Unix shell, Jupyter

OTHER PROJECTS

Alternative Actor and Co-Star Suggestion Using a Graph Autoencoder Model <ul style="list-style-type: none">Applied graph autoencoder to actor network using Keras in Python, achieving 99.46% accuracy in reconstructing the graph.An alternative actor is found by searching the latent space using a K-d tree.A co-star is suggested according to the predicted weights from the autoencoder model.	Apr. 2021 Github repo
Optimization Problems <ul style="list-style-type: none">Optimized unconstrained and constrained convex problems using line search, trust region, and log barrier.	Jul. 2019 Github repo

HONORS AND AWARDS

York University Fellowship , C\$62,500 for my master's studies	2021-2022
Second Place in the rescue simulation virtual robot league at RoboCup in Nagoya, Japan	2017
Ranked top 0.5% in nationwide Iranian university entrance exam among 180,000 participants	2015
Member of National Organization for Development of Exceptional Talents (NODET)	2011-2015