Reyhaneh Esmailizadeh

Software Engineering Senior Undergraduate Student
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EXPERIENCE

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- **Durham University, England**
  Research Assistant *Jul. 2024 – Jul. 2025*
  - Analyzing the potential of vision transformer foundation models and bi-modality in image recognition. Led to an accepted paper in ICMV 2025.
- **Tehran Institute for Advanced Studies** The most outstanding research-centered educational institute in Iran
  Research Intern *Aug. 2024 – Sep. 2024*
  - Conducting analytical research on LLaMa language models based on the article "Do Llamas Work in English? On the Latent Language of Multilingual Transformers"

SKILLS, RELEVANT COURSES, AND LANGUAGE PROFICIENCY

- **General Programming Skills:** Python, C, R, C++, SQL, PHP, Java
- **Machine Learning Tools:** Keras, TensorFlow, PyTorch, OpenCV, NumPy, pandas, Scikit-learn, OCT-Converter, Matplotlib, eyepy
- **Tools/IDEs:** Git, Google Colab, Kaggle, Visual Studio Code, Matlab, PyCharm, Jupyter Notebook, Dev-C++, Windows, macOS, ModelSim, Microsoft Office
- **Coursework(The marks can be viewed on LinkedIn):** Deep Learning, NLP, Computer Vision, ML, AI, Control Systems
- **Language:** IELTS 7.5
- **Leading and Management:** Public speaking, Mentoring, Coordination of people and events

EDUCATION

- **University of Tehran** (UT) Tehran-Iran
  Bachelor of Science *Sep. 2021 – Expected Aug. 2025*
  - Software Engineering Specialization
    Cumulative GPA: 18.54/20. Ranked 1st
    Top 1% in National Exam — Outstanding Student Award — Scholarship Recipient

PUBLICATIONS

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- **SLOTMFound: Foundation-Based Diagnosis of Multiple Sclerosis Using Retinal SLO Imaging and OCT Thickness-maps**
  Keywords: Foundation Models; Multiple Sclerosis; OCT; SLO; Artificial Intelligence; Deep Learning
  Durham University, Durham, UK, Jul. 2024 – Jul. 2025 **First Author** *Accepted at ICMV 2025 (ISI Indexed)*

PROJECTS

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- **Deep Learning and Neural Networks**
  - Analysis of FGSM and PGD Adversarial Attacks
  - Optimal Neural Network Regression Task
  - Implementation of the Article "A CNN-Based Framework for Classification Alzheimer's Disease" Using the ANDI Dataset
  - Implementation of the Article "Brain Tumor Segmentation Using Enhanced U-net with Empirical Analysis"
  - Implementation of the Article "Political Sentiment Analysis of Persian Tweets Using CNN-LSTM Model"
  - Implementation of the Article "Towards COVID-19 Fake News Detection Using Transformer-Based Models"
  - Implementation of the Article "Image-to-Image Translation with Conditional Adversarial Networks"
- **Artificial Intelligence**
  - Applying Genetic Algorithms to the Knapsack Problem
  - Audio Classification Using HMM from Scratch
  - Applying DBSCAN and K-Means for Clustering Flower Images
  - Applying SVM, KNN, Decision Trees, Ensemble Learning, and Linear Regression to a Dataset
  - Classifying Suicidal Tweets Using the Word2Vec Library and Deep CNN
  - Designing a Snake Game Using Q-Learning
- **Machine Learning Algorithms**
  - Estimation Problem Using Maximum Likelihood and Applying Kernel PCA to the IRIS Dataset
  - Implementing K-Means, Kernel K-Means, and EM Clustering Algorithms from Scratch on a Dataset
  - Applying DBSCAN to the Circle Dataset from Scratch
  - Estimating the Density Function Using Different Kernel Functions on the Nerve Dataset