

Amir Mohammad Komijani

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Education

IUST University (among the top 4 universities in Iran)

B.Sc. in Computer Science at Iran University of Science & Technology

Tehran, Iran

2019 - Present

- Ranked Within the Top 0.5% in Iranian University Entrance Exam
- GPA of the Last Year: 3.91/4.0 (Last Two Years: 3.80/4.0)
- Ranked among the top students in my class based on GPA
- Selected Courses: Natural Language Processing 92/100, Computer Vision 85/100, Artificial Intelligence 80/100, StatisticsProbability 92/100,Software Engineering 85/100, Algorithmic Trading 85/100

Research Interests

- Natural Language Processing
- Deep Learning
- Machine Learning
- Computer Vision
- Data Science
- Graph Neural Networks
- Knowledge Discovery
- Big data Mining

Research Experience

Natural Language Processing Intern Researcher and Developer

Bachelor Thesis, School of Computer Engineering

IUST University

September 2024 - present

- Supervisor: Dr. Marzie Davood Abadi
- Researching and Developing NLP applications, specifically focusing on Retrieval Augmented Generation, Large Language Model, Chatbots, message classification, and bot detection on social media .
- Tasks :
 - * Reading and analyzing academic articles
 - * Summarizing key findings from research papers
 - * Preparing detailed reports based on article insights
 - * Experience with platforms like Huggingface and libraries such as TensorFlow

Teaching & Working Experience

Teaching Assistant

School of Computer Engineering

IUST University

Feb 2023 - Jun 2024

- Natural Language Processing(HEAD TA) - Instructor: Dr. Leila Azadkhah, Dr. Nasser Mozayani - Fall 2024
- Deep Learning - Instructor: Dr. Marzie Davood Abadi - Fall 2024
- Artificial Intelligence - Instructor: Dr. Mohammad Reza Mohammadi - Fall 2023
- Operation System Labratory - Instructor: Dr. Reza Entezari-Maleki - Spring 2024
- Computer Architecture - Instructor: Dr. Amir Mahdi Hosseini Monazzah - Spring 2024
- Advanced Programming - Instructor: Dr. Sauleh Etemadi - Spring 2024
- Fundamentals of Programming - Instructor: Dr. Mehrdad Ashtiani - Spring 2024
- Algorithms Design and Analysis - Instructor: Dr. Marzieh Malekimajd - Spring 2023
- Database System Design - Instructor: Dr. Hossain Rahmani - Spring 2023

Backend Developer

Junior Backend developer

Freelancer

2023-2024

- * Programming Languages: Python
- * Technologies: Django Rest Framework, PostgreSQL, Docker, AWS, Nginx

Projects

Retrieval-Augmented Generation for Movie Recommendation

IUST University

Natural Language Processing - [GitHub](#)

Feb-Jun 2024

- The system retrieves relevant movie descriptions from a large dataset and generates recommendations based on user queries using transformer models.
 - **Retriever Model:** sentence-transformers/all-MiniLM-L6-v2
 - **Generators Model:** microsoft/Phi-3-mini-128k-instruct, GPT-2, T5-small, google/gemma-2-9b
- **Dataset :** sileod - movie_{recomm}endation

Question Answering for Real State

IUST University

Natural Language Processing - [GitHub](#)

Feb-Jun 2024

- A question answering system designed for Persian text, leveraging retrieval-augmented generation (RAG) models
- **Retriever Model:** all-MiniLM-L6-v2, all-mpnet-base-v2
- **Generator Model:** GPT-2
- **Dataset :** Persian Text Data which is related to recordings for real state business

Visual Question Answering

IUST University

Natural Language Processing - [GitHub](#)

Feb-Jun 2024

- A Visual question answering system designed for recognizing and classifies images based on their colors.
- **Questions:** v2-OpenEnded-mscoco-train2014-questions
- **Annotations:** v2-mscoco-train2014-annotations
- **Model :** Design a simple sequential model myself.

Anti-Spoofing

IUST University

Computer Vision - [GitHub](#)

Feb-Jun 2024

- Anti-Spoofing is a technique used to distinguish between real and spoofed images or videos, ensuring the authenticity of the subject in both offline and real-time scenarios.
- **Models :** Simple CNN, Bigger-complex CNN, MobileNet, InceptionV3
- **Domain :** Using Deep Learning Models directly to Images, Using Feature Extraction like LBP, Frequency,...
- **Datasets :** casiafasd, celeba-spoof-for-face-antispoofing

Tascrum

IUST University

Software Engineering Course Project - [GitHub](#)

2021-Present

- Tascrum is a project management system to make collaboration easier between teams
- The application was developed with **Scrum Methodology**.
- **Position :** Scrum Master , Backend Developer , Devops Engineer

More Projects

IUST University

[GitHub](#)

Sep-Dec 2023

- More Projects on **NLP** during NLP Course like LSTM Price Prediction, Sentiment Analysis, N-Grams,...
- More Projects on **Computer Vision** during Computer Vision university, Datascience365 Course like Designing CNN, Big CNNs, ResNet, GoogleNet, VGGnet, ... and Implementing Projects using OpenCV.
- And Many Projects On **Data Analysis** and **Visualization**, Software Engineering, ...

Honors & Certificates

Ranked Within the Top 0.5% in Iranian University Entrance Exam

July 2019

Mathematics and Physics majors

Machine Learning Specialization

Oct, Nov 2021

Certificate Coursera(Deep Learning.AI , Stanford)

Jan 2024

- Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms
- Unsupervised Learning, Recommenders, Reinforcement Learning

Deep Learning With Tensorflow2

Jul 2024

Certificate on 365datascience.com

- Deep Learning - Tensorflow

Intro to LLMs

Jul 2024

Certificate on 365datascience.com

- Natural Language Processing - Large Language Models -

Convolutional Neural Networks with TensorFlow in Python

Jul 2024

Certificate on 365datascience.com

- Computer Vision - Convolutional Neural Network - Tensorflow

Skills

- **Programming Languages:** Python, C#, Java, C++, C, Js, Golang
- **Libraries and Frameworks:** Tensorflow, Keras, Pytorch, OpenCV, Scikit-learn, Seaborn, Numpy, Pandas, Matplotlib, Kotlin, Django Rest Framework, ASP .Net Core
- **Environments and Tools:** Google Colab, Kaggle, Linux(Ubuntu), Git, AWS, Postman, Android Studio, Latex

Languages

- **Persian:** Native
- **English:**
 - **Iran Language Institute** : Certified for Finishing All Courses with advanced level at the end.
 - **TOEFL iBT**: I am scheduled to participate in the TOEFL iBT exam soon.

References

Dr. Nasser Mozayani

Iran University of Science & Technology

Professor, School of Computer Engineering, Iran University of Science and Technology

- Email: h_mozayani@iust.ac.ir

Dr. Reza Entezari

Iran University of Science & Technology

Assistant Professor at Department of Computer Engineering

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Dr. Sauleh Etemadi

Iran University

Assistant Professor, Iran University of Science and Technology University of Birmingham Dubai, Microsoft Research, M

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Dr. Amir Mahdi Hosseini Monazzah

Iran University of Science & Technology

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