Setareh Babajani



Education

IUST University (among the top 4 universities in Iran)

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

Tehran, Iran 2020 - Feb 2025

- GPA of the Last Two Years: 4.0/4.0 (18.31/20.0 on the Iranian Scale)
- Overall GPA: 3.98/4.0 (18.49/20.0 on the Iranian Scale)
- Ranked among top 10% GPA in my class
- Selected Courses (on the Iranian Scale): Natural Language Processing: 18.32/20, Artificial Intelligence: 17.54/20,
 Deep Learning: 20/20, Computer Vision: 17.88/20, Signals and Systems: 19.5/20, Computer Networks: 17.1/20

Farzanegan Babol High School

Diploma in Mathematics and Physics

Mazandaran, Iran 2016 - 2020

- Grade: 19.90/20.0

Research Interests

• NLP • Deep Learning

Machine Learning

• Computer Vision

• Generative Models

• Recommender Systems • Graph Neural Networks

Research Experience

Natural Language Processing Research Assistant in NLP Laboratory

IUST

April 2024 - Present

- Bachelor Thesis, School of Computer Engineering
 - Supervisor: Dr. Sauleh EetemadiUsing RAG models for medical diagnosis.
 - Exploring different models like GPT, Llama, and Med-Flamingo.
 - Exploring different evaluation metrics like ragas metrics or Ilm as a judge method.

Natural Language Processing Intern

IUST

Summer Internship

Jun 2023 - Sep 2023

- Supervisor: Dr. Sauleh Eetemadi
- Worked on the "Visual Dialog in the medical Field" project and reviewed related articles. GitHub
- Implemented various Encoder-Decoder models and Attention Mechanisms using Keras & tensorflow.

Skills

- Programming Languages: Python, Java, C, C++, C#, JS, SQL, HTML, CSS
- Libraries and Frameworks: Pytorch, Keras, TensorFlow, Scikit-Learn, Numpy, React JS
- Environments and Tools: Git, Postman, Azure Devops, Linux (Ubuntu)

Teaching & Academic Experience

Teaching Assistant

IUST Oct 2022 - Jan 2025

School of Computer Engineering

- Artificial Intelligence - Instructor: Dr. Mohammad-Reza Mohammadi - Fall 2024

- Systems Analysis and Design Instructor: Dr. Mehrdad Ashtiani; Fall 2024
- Compilers Instructor: Dr. Saeed Parsa Fall 2023
- Fundamentals of Programming Instructors: Dr. Sauleh Eetemadi; Dr. Mehrdad Ashtiani; Dr. Marzieh Davoodabadi Farahani Spring 2022, Spring 2023, Fall 2024
- Advanced Programming Instructor: Dr. Sauleh Eetemadi Fall 2022
- Algorithms Design Instructor: Dr. Farzaneh Ghayour Baghbani Fall 2024

Academic Projects

NoWaste IUST

System Analysis and Design Course Project

Winter 2022

- It's an application for preventing the wastage of unsold food in restaurants and cafes.
- The application was developed with Scrum Methodology and I contributed to the front-end of it.
- Frontend is implemented with React JS. GitHub
- Backend is implemented with Django. GitHub

Anti-Spoofing algorithm for checking the liveliness of faces in videoes

IUST

Computer Vision Course Project - GitHub

Spring 2024

- The project was for checking whether a face in the video is alive or not.
- In this project, two different models, including a feature-based and a deep learning model, were used.
- For the feature-based model, SVC was used.
- For the deep moodel, VGG16 and some extra un-pretrained layers were used.
- The data came from CASIA-FASD.

Sentiment Analysis in Persian texts

IUST

Deep Learning Course Project - GitHub

Winter 2024

- In this project, DistilBert model was used.
- In this project, different pre-processing methods like normalization, stemming, spell checking, and vectorization were used.
- The data came from ArmanEmo dataset.

RAGs IUST

NLP Course Project Spring 2024

- The first RAG project is for Chatbot for a website's FAQ which compares the result of three different generative models.
 GitHub
- The second RAG project is for organizational reports which use gpt2 in generation time. GitHub

Theory of Languages and Automata Proejcts

IUST

TLA Course

Winter 2021

- Implementing turing-machine. GitHub
- Implementing PDA-calculator. GitHub
- Implementing string-belongs-to-finite-automata. GitHub

Honors & Certificates

Among the top 10% in my class in GPA (18.49/20 overall)

Sep 2020 - Present

School of Computer Engineering, IUST

- Class of about 100 students

Ranked Within the Top 0.7% in Iranian University Entrance Exam

July 2020

Mathematics and Physics majors

Deep Learning Specialization

Sep 2023

Certificate on Coursera.org

 Includes courses on Neural Networks and Deep Learning, Machine Learning, Convolutional Neural Networks, Sequence Models

Natural Language Processing with Classification and Vector Spaces

Certificate on Coursera.com

Sep 2023

- Covers many topics in NLP and Data Preprocessing using Python.

Convolutional Neural Networks

Certificate on Coursera.com

Aug 2023

- Covers many topics about CNNs, object detection and face recognition.

Algorithms on Graphs

Mar 2022

Certificate on Coursera.org

- Includes courses on graphs, MST and ASP.

Data Structures Dec 2021

Certificate on Coursera.org

- Includes courses on different data structures, hash tables and BST.

Algorithmic Toolbox Nov 2021

Certificate on Coursera.org

- Includes courses on greedy algorithms, divide-and-conquer algorithms and dynamic programming.

Languages

• Persian: Native speaker

• English:

- IELTS: Overall: 7, Reading: 8, Listening: 7.5, Speaking: 6.5, Writing: 6.5

Membership

Volunteer Member of Computer Engineering Scientific Association

IUST

School of Computer Engineering

Jan 2023 - May 2024

- CESA LEARN: Assisting in the organization of academic courses

References

Dr. Sauleh Eetemadi

Iran University of Science & Technology - University of Birmingham

Assistant Professor at Department of Computer Engineering

- Email: s.eetemadi@bham.ac.uk

Dr. Behrooz Minaei-Bidgoli

Iran University of Science & Technology

Professor at Department of Computer Engineering

- Email: b_minaei@iust.ac.ir

Dr. Mehrdad Ashtiani

Iran University of Science & Technology

Assistant Professor at Department of Computer Engineering

- Email: m_ashtiani_AT_iust.ac.ir

Dr. Marzieh Davoodabadi Farahani

Iran University of Science & Technology

Assistant Professor at Department of Computer Engineering

- Email: ma.davoodabadi.at.gmail.com