Erfan Sadraiye

sadraiyeh.e2002@gmail.com 0933 742 3153 erfansadraiye

Education

BS **Sharif University of Technology**, Computer Engineering — Sept 2020 – May 2025

- GPA: 19.77/20.0 (4.0/4.0) (Transcript)
- Ranked in the Top 3 out of 192 students

Diploma **Allame Helli 10 High School**, Mathematics and Physic — Sept 2016 – May 2020

- GPA: 19.7/20.0

Professional Experience

Image Processing Lab at SUT, Undergraduate Research Assistant — Jan 2024 – present

- Supervised by: Prof. Shohreh Kasaei
- Research Topics: Style Transfer in 3D Point Clouds
- Conducted in-depth research on style transfer in 3D point clouds, with a focus on developing advanced deep learning models and architectures. Experimented with a variety of models across diverse datasets, writing and optimizing training code to enhance performance. Incorporated insights from cutting-edge research to improve model robustness and efficiency, and currently preparing a comprehensive paper to present our findings.

Natural Language Processing Lab, Undergraduate Research Assistant — May 2023 – present

- Supervised by: Dr. Ehsaneddin Asgari
- Research Topics: Text to 3D Human Pose
- Conducted research on converting text descriptions to 3D human poses by downloading, configuring, and evaluating various models; contributed to a survey paper synthesizing academic findings, and presented key methodologies and results to the lab group while participating in discussions on improving model accuracy and exploring new approaches.

Smartech, Data Software Engineer — Aug 2022 – Sept 2024

- Led a team in developing a Real-Time Bidding (RTB) module with several key functions to enhance campaign performance.
- Developed a search ads system using a recommendation system within the RTB module, improving ad relevance, user targeting, and campaign performance.
- Applied AI/ML models for various tasks, including predicting optimal prices for auction participation.
- Worked with different tools such as Elasticsearch, Redis, Kafka and etc.

Sharif University of Technology, Volunteer Teacher Assistant — Sept 2020 – present

- **Artificial Intelligence (TA for 4 semesters)**| M.H. Rohban & M. Soleymani
- **Machine Learning**| A. Motahari
- **Machine Learning**| S.F. Seyyed Salehi
- **Modern Information Retrieval**| M. Soleymani
- **Engineering Probability and Statistics**| Dr. A. Sharifi-Zarchi
- **Linear Algebra**| Dr. H.R. Rabiee & Dr. M. Ramezani

Honors and Awards

59th in the Nationwide University Entrance Exam among over 160,000

Research Interests

- **Computer Vision**, **Natural Language Processing**, **Multimodal Learning**, **Applied AI/ML**, **Robotics**

Related Coursework

- **Machine Learning (Graduate)**, **Natural Language Processing(Graduate)**
- Artificial Intelligence, Linear Algebra, Probability & Statistics, Data Structures & Algorithms, Operating Systems, Computer Simulation, Database Design

Projects

Formal/Informal Persian Conversion - NLP Course Final Project Github

- Developed an NLP model to convert informal Persian to formal Persian and vice versa, improving linguistic fluency by bridging the gap between different language styles in written text.
- Tools Used: PyTorch

Recognize Text Detoxification - NLP Course Project Github

- Fine-tuned a transformer-based model to classify text for toxicity. The model was further trained to analyze each word and indicate its level of toxicity.
- Tools Used: PyTorch

Rock Paper Scissors: Hand Gesture Edition - Embedded System Course Project Github

- Developed a tournament-style Rock-Paper-Scissors game using the ESP32CAM module, implementing OpenCV-based real-time hand gesture recognition and creating an adaptive AI opponent that learns player patterns to increase difficulty.
- Tools Used: Python, OpenCV, ESP32CAM, PyTorch (for AI learning model)

Skills

Languages

- **English**: Advanced, TOEFL iBT: 105 (R:28 L:29 S:23 W:25)
- **Persian**: Native

Programming

- **Proficient Languages**: Python, R, Kotlin/Java, SQL, C/C++, Shell, LateX
- **Libraries**: PyTorch, TensorFlow, Pandas, NumPy, Scikit-Learn
- **Technologies/Tools**: Git, Docker, Spring Boot, Elasticsearch, Redis, Apache Kafka, PostgreSQL

Extracurricular Activities

- Football, Video Games, Swimming

Soft Skills

- Communication, Teamwork, Problem-solving, Flexibility