ERFAN NASIRI

Machine Learning Engineer

(+98) 930 046 0503 | erfan.nassirri@gmail.com | Gilan, Iran

Erfanium | Erfannnasiri | https://erfanium-79.github.io

EDUCATION

Tehran University
Tehran, Iran
2020 - 2024

B.Sc. of Computer Engineering

- GPA: 3.35/4
- Project: Ovarian Cancer Detection Using AI and CNN
- Supervisor: Fateme Esmaeili

RESEARCH INTERESTS

- Natural Language Processing
- Large Language Models
- Computational Linguistics
- AI in Medical Diagnosis

HONORS AND AWARDS

- Top 5% in Iran's nationwide university entrance exam, among more than 155,000 participants.
- Awarded a fully funded 4-year Bachelor of Science degree in Computer Engineering.

SKILLS

- **Programming & Scripting:** Python, C, C++, VHDL, Bash, SQL
- **Machine Learning & AI:** Deep Learning (TensorFlow, Hugging Face, GANs, Generative AI), NLP (NLTK, LLMs, Prompt Engineering, Fine-Tuning LLMs), Computer Vision, MLOps
- **Cloud & DevOps**: AWS (SageMaker), Google Cloud, Docker, Kubernetes, Git, GitHub, Linux (LPIC-1, LPIC-2), Bash Scripting
- **Tools & Productivity & Best Practices**: LaTeX, Jira

WORK EXPERIENCE

ChashmYar
2024 - Present

Machine Learning Engineer

Completed various tasks including but not limited to:

- Caption generation describing the infection based on eye images
- Eye disease type prediction and classification
- Fine-tuning previously existing models to run faster and improve accuracy

PROJECTS

Tweet Emotion Recognition with TensorFlow

- Developed a deep learning model to classify emotions in tweets.
- Utilized TensorFlow and NLP techniques for sentiment analysis.

Facial Expression Recognition with PyTorch

- Built a convolutional neural network (CNN) to classify facial emotions.
- Trained the model on a dataset of facial expressions for emotion detection.

Generative Adversarial Network on MNIST (PyTorch)

- Implemented a GAN to generate realistic handwritten digits.
- Trained the model using PyTorch on the MNIST dataset.

Solving Maze Problem Using Reinforcement Learning

- Applied reinforcement learning for pathfinding in a dynamic environment.
- Designed an agent to navigate through obstacles while optimizing the shortest path.

Predicting Water Pollutant Removal Efficiency with Machine Learning

- Developed ML models to predict pollutant removal efficiency in water treatment.
- Engineered features and analyzed a dataset for improved model performance.

Planning, Analysis, and Design of an Online Auction System

- Created a detailed software requirements specification and UML diagrams.
- Designed an ER diagram and database schema for the auction platform.
- Supervisors: Dr. Azadeh Ebrahimian Pirbazar, Dr. Fatemeh Esmaeili K. S. (Tehran University)

PUBLICATIONS

- Azadeh Ebrahimian, Erfan Nasiri, et al. Anchorage of ZnO quantum dots and CuO on graphene for sonophotocatalytic treatment of pharmaceutical effluent: From experimental data and prediction by advanced machine learning algorithms. Journal of Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2025.

TEACHING EXPERIENCE

- Physics II
- Differential equations (ODE)
- Engineering Mathematics (Advanced)

SELECTED COURSES

- Artificial Intelligence (Grade: A+)
- Data Base Design (Grade: A+)
- Operating Systems (Grade: A+)
- Systems Analysis and Design (Grade: A)

LANGUAGE SKILLS

- Persian: Native
- Engish: Bilingual proficiency, advanced (IELTS score to be taken soon)

REFERENCES

Fateme Esmaeili

- Supervisor
- f.esmaeili.kh@ut.ac.ir

CERTIFICATES

- Generative AI with Large Language Models
- NLP Specialization (Coursera):
  - Natural Language Processing with Classification and Vector Spaces
  - Natural Language Processing with Probabilistic Models
  - Natural Language Processing with Sequence Models
  - Natural Language Processing with Attention Models
- ChatGPT Prompt Engineering for Developers
- Building Systems with the ChatGPT API
- LLMOps
- Finetuning Large Language Models
- Reinforcement Learning From Human Feedback
- Agile with Atlassian Jira
- Recommender Systems

⚠ **References, Further information, and Proofs are available upon Request** ⚠