ERFAN NASIRI

Machine Learning Engineer

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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:** Python, C, C++, VHDL, MySQL, LaTeX,
- **Frameworks**: Tensorflow, Keras, NLTK , Transformers, FastAPI
- **Cloud**: Google Cloud, AWS (SageMaker)
- **Softwares/Tools**: Visual Studio, MS Word, MS Excel, Git, Github, Linux,

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

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.

PROJECTS

Predicting Water Pollutant Removal Efficiency with Machine Learning Techniques

- Developed and evaluated machine learning models to predict the percentage of pollutant removal achievable by a given water treatment technology
- Analyzed a comprehensive dataset of water pollutant remover characteristics and removal performances, extracting key features and engineering additional informative variables
- This project was part of a chemical engineering student's maters thesis.
- Supervisors: Dr. Azadeh Ebrahimian Pirbazar, Dr. Fatemeh Esmaeili K. S. (Tehran University)

Planning, Analysis, and Design of an Online Auction System

- Creating a high-quality software requirement specification document for the system
- Creating ER diagram for the system database
- Specifying, visualizing, and documenting the system using UML diagrams

Solving Maze Problem Using Reinforcement Learning

- Problem environment included flags and walls
- The agent had to cross all flags and find the shortest path without hitting a wall
- Applying reinforcement learning techniques for the required tasks

SELECTED COURSES

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

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

LANGUAGE SKILLS

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

TEACHING EXPERIENCE

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

REFERENCES

Fateme Esmaeili

- Supervisor
- denilson@ualberta.ca

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