ZAHRA AHMADI

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EDUCATION

Guilan University   Sep. 2019 – Aug 2023
B.Sc in Computer Engineering   *Rasht, Iran*
- GPA: 3.66/4 (17.95/20)
- GPA(Last two years): 3.8/4

SKILLS

Programming Languages: Python, Java, C++, C, VHDL, MySQL
ML Frameworks: Pytorch, TensorFlow, Keras, Scikit-learn, Huggingface
Data Science Tools: Numpy, Pandas, Matplotlib, Seaborn
Web Development: HTML, CSS
Operating Systems: Linux(Ubuntu), Windows, macOs
Extra Tools: Git, Latex
Technical Expertise: Machine Learning, Deep Learning, Natural Language Processing, Data Structures, Algorithms

RESEARCH PAPERS

Sperm Analysis   January 2023 - Present
- Zahra Ahmadi, Yazdan Haghi, Seyed Abolghasem Mirroshandel, Yasaman Boreshban
- In this research project, we employed Meta-learning to improve the accuracy of sperm abnormality detection.

INTERESTS

- **Machine Learning**   • **Deep Learning**   • **Reinforcement Learning**   • **Data Mining**   • **Computer Vision**
- **Natural Language Processing**   • **Signal Processing**

PROJECTS

Normal Cyst Tumor And Stone | *[repo]*   **PyTorch**
- I've implemented Convolutional Neural Networks (CNNs), ResNet, and VGG for kidney CT image classification

Amazon Reviews | *[repo]*   **PyTorch**
- Sentiment analysis model with Logistic Regression on preprocessed Amazon Reviews, featuring diverse classification models (Embedding, BERT, Neural Networks) and text processing (tokenization, lemmatization, stemming).

An Odd Music Generator | *[repo]*   **PyTorch/ Python/ Librosa**
- Project explores Autoencoders, audio processing, Seq2seq models, with Denoising, Note Recognition, Note Prediction, Noise Maker components, and an LSTM-based n-gram language model for music composition.

Multi Class Weather | *[repo]*   **PyTorch**
- I worked on a Multi-class Weather Dataset using computer vision, deep neural networks (e.g., ResNet, Inception), and k-fold cross-validation for evaluation.

Analyzing Human Metaphase II Oocyte Images | *[repo]*   **PyTorch**
- This project showcases a robust deep learning-based multiclass semantic segmentation method designed for human metaphase II oocyte image analysis, as described in a paper

NLP Subject Similarity | *[repo]*   **PyTorch/ TensorFlow**
- The project uses neural networks for textual similarity analysis, including Data Labeling, Multi-label RNN Classification, Text Preprocessing, and Classification Networks.

Students Academic Performance | *[repo]*   **Python/TensorFlow**
- The project aimed to predict student acceptance or rejection during an academic semester using a neural network built from scratch and TensorFlow.

Trie | *[repo]*   **Java**
- I created a student management system, using a HashTable to store student data by IDs and a Trie tree for key management.

Four In Row | *[repo]*   **Python/ PyGame**
- The game is in single-player mode, with an AI Agent using the Negamax algorithm.

CERTIFICATIONS

- **Build Basic Generative Adversarial Networks (GANs)** | *Coursera, by Sharon Zhou* | *[certificate]*   **2023**
- **Deep Learning Specialization** | *Coursera, by Andrew Ng* | *[certificate]*   **2023**
- **Machine learning** | *Coursera, by Andrew Ng* | *[certificate]*   **2022**
- **Introduction to TensorFlow** | *Coursera, by Laurence Moroney* | *[certificate]*   **2022**
- **Convolutional Neural Networks in TensorFlow** | *Coursera, by Laurence Moroney* | *[certificate]*   **2022**
- **Introduction to Data Science in Python** | *[certificate]*   **2021**
- **Divide and Conquer, Sorting and Searching, and Randomized Algorithms** | *[certificate]*   **2021**
- **Graph Search, Shortest Paths, and Data Structures** | *[certificate]*   **2021**
- **Introduction to HTML5** | *[certificate]*   **2022**

TEACHING ASSISTANT EXPERIENCE

Artificial Intelligence | *University of Guilan* | *Head TA*   **Fall 2022**
- Instructor: Dr. Y. Boreshban
- I oversaw assignments, guided projects, and created informative neural network videos to enhance learning and comprehension.

Algorithm Design | *University of Guilan* | *Head TA*   **Fall 2021**
- Instructor: Dr. A. Khozaei
- I planned and assessed programming assignments for students.

Data Structure | *University of Guilan* | *Head TA*   **Fall 2021**
- Instructor: Dr. F. Feyzi
- I designed and evaluated assignments for students to implement complex data structures and algorithms, including priority queues, hash tables, and linked lists.

Discrete Mathematics | *University of Guilan* | *Head TA*   **Fall 2020 / Fall 2021**
- Instructor : Dr. S. M. Shekarian
- I created weekly assignments and provided assessments with valuable feedback to help students

Digital Circuits | *University of Guilan* | *Head TA*   **Fall 2021**
- Instructor: Dr. M. Aminian
- It was my responsibility to develop projects and assess assignments.

Computer Aided Design | *University of Guilan* | *Head TA*   **Fall 2022**
- Instructor: Dr. M. Aminian
- I evaluated weekly assignments, designed the final project working with the FPGA board, and resolved the student's problem.

Microelectronic Circuits | *University of Guilan*   **Spring 2023**
- Instructor: Dr. M. Aminian
- Providing solutions to students' problems and assessing assignments were my responsibilities.

AWARDS AND ACHIEVEMENTS

Full Scholarship, B.Sc, University of Guilan
Ranked 10th among B.Sc Computer Engineering Students

LANGUAGES

- **Persian** : Native   • **English** : Fluent (I will take my IELTS exam in November)

REFERENCES

Dr. Seyed Abolghasem Mirroshandel | *University of Guilan*   **Rasht, Iran**
- Associate Professor of Computer Engineering
- Email: mirroshandel@guilan.ac.ir
- Google scholar

Dr. Mahdi Aminian | *University of Guilan*   **Rasht, Iran**
- Assistant Professor of Computer Engineering
- Email: mahdi.aminian@guilan.ac.ir
- Google scholar

Dr. Farid Feyzi | *University of Guilan*   **Rasht, Iran**
- Assistant Professor of Computer Engineering
- Email: feizi@guilan.ac.ir
- Google scholar