Seyedeh Masoumeh Taheri

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EDUCATION

B.Sc. in Computer Engineering
[Babol Noshirvani University of Technology, Babol, Iran](#)   **2018 - 2022**

- **Thesis:** ESVR-NET: Ensemble Support Vector Regression Meta-feature Space Generator based on Transferred Deep Learning of Medical Images - Thesis Grade: 20/20
- **Supervisor:** Dr. Hesam Omranpour
- **CGPA in last 60 hours:** 16.36/20 (3.42/4)

Diplomas in Mathematics and Physics
National Organization for Development of Exceptional Talents, Babol, Iran   **2014 - 2018**

- **CGPA:** 19.87/20 (4/4)

RESEARCH INTERESTS

- Machine Learning
- Deep Learning
- Computer Vision
- Medical Image Analysis

PUBLICATIONS

- Taheri, M., & Omranpour, H. (2024). Breast cancer prediction by ensemble meta-feature space generator based on deep neural network. Biomedical Signal Processing and Control, 87, 105382.
  https://doi.org/10.1016/j.bspc.2023.105382   **2023**

- Omranpour, H., Mohammadi Ledari, Z., & Taheri, M. (2023). Presentation of encryption method for RGB images based on an evolutionary algorithm using chaos functions and hash tables. Multimedia Tools and Applications, 82(6), 9343-9360.
  https://doi.org/10.1007/s11042-022-13734-x   **2022**

ACADEMIC EXPERIENCE

Research Assistant, Computational Intelligence Laboratory   **2021 - present**

- Devised an innovative algorithm for the classification of COVID-19 through X-ray images and breast cancer via ultrasound scans, resulting in accuracy enhancements of 3.6% and 4.8% respectively, in comparison to existing methodologies
- Mentored junior researchers, providing guidance on deep learning methodologies, and Python programming
- Translated technical research paper on image encryption from Persian to English

Teaching Assistant, Babol Noshirvani University of Technology, Babol, Iran   **Feb'20 - Jun'20**

- **Course:** Data Structures
- **Supervisor:** Dr. Hesam Omranpour

Work Experience

Python Developer, Roshan (an AI Company), Tehran, Iran **2022 - present**

- Created and executed a text preprocessing algorithm, boosting AI text classification model performance by 20%
- Designed and implemented RESTful APIs to facilitate seamless communication between frontend interfaces and AI models, enhancing user experience.
- Optimized database queries and schema designs to enhance data retrieval speeds, resulting in a 15% decrease in API response times
- Implemented continuous integration and continuous deployment (CI/CD) pipelines, automating testing, building, and deployment of AI backend services
- Implemented authentication and authorization mechanisms using technologies like JWT tokens and Djoser library to maintain secure user access to AI applications
- Collaborated in a cross-functional team to architect and develop backend solutions for AI-powered products, ensuring scalability and efficient data processing

Projects

- EEG signals classification of imagined speech
- Baaz project: a Persian search engine based on Elasticsearch. My Role: backend developer
- Kashf project: a text and image pattern recognition tool. My Role: backend developer
- Targar project: proficient translator skilled in translating across diverse languages. My Role: backend developer

Skills

Programming	Python, MATLAB, C++, Java
Tools	Tensorflow, Scikit-learn, Keras, OpenCV, Pandas, PostgreSQL, Git, Django, Docker, Celery, REST APIs, TeX/LaTeX
Languages	IELTS: Overall: 7.5, R:8, L:8, S:7, W:6

Related Courses

Courses	Scores (out of 100)
Data Mining	91.5
Advanced Algorithms	88
Artificial Intelligence and Expert Systems	88
Design of Algorithms	83
Data Structures	80.5
Python	100
Deep learning	96

Honors and Awards

- My final project ranked first among bachelor projects across all departments at Babol Noshirvani University of Technology.
- Obtaining a research grant (No P/M/1110) resulted in the publication of my most recent paper in the Biomedical Signal Processing and Control journal.
- Ranked within the top 10% among more than 10,000 participants in the Iranian Computer Olympiad.
- Ranked within the top 10% among more than 10,000 participants in the Iranian Physics Olympiad.

REFERENCES

- Dr. Hesam Omranpour, Assistant Professor of Computer Engineering, Vice-Chancellor of the Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology. ✉ h.omranpour@nit.ac.ir
- Dr. Mehdi Emadi, Assistant Professor of Computer Engineering, Head of Information Technology Center, Babol Noshirvani University of Technology. ✉ m.emadi@nit.ac.ir
- Dr. Hamid Jazayeriy, Assistant Professor of Computer Engineering, Department of Electrical and Computer Engineering, Babol Noshirvani University of Technology. ✉ jhamid@nit.ac.ir