Parmida Jabari

Tehran, Iran

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Education

Shahid Beheshti University

September 2020 – Feb 2025

B.Sc. of Computer Science

Tehran, Iran

- GPA: 17.87/20.00
- Final Project: Machine Learning-Based Dose Prediction System for Radiation Therapy
 - * Designing a system using CT/PET images to improve personalized cancer treatment.
 - * Findings are currently under review in a peer-reviewed journal.
 - * Supervisor: Dr. Saeed Reza Kheradpisheh.

Research Interests

- Machine Learning and Artificial Intelligence
- Neuroscience, Human-Computer Interaction, and Cognitive Studies
- Computer Vision and Image Processing
- Robotics, Autonomous Systems, and Human-Robot Interaction
- Computational Medicine and Healthcare Applications

Publications

• Autonomous Rearrangement Planning Using Object Similarity Learning (Accepted for publication in IEEE Xplore)

International Conference on Robotics and Mechatronics (ICROM 2024)

October 2024

- , Parmida Jabari, Zeynab Ezzati Babi, Hamed Ghasemi, Mehdi Tale Masouleh and Ahmad Kalhor
- Machine Learning-Based Dose Prediction in [177Lu]Lu-PSMA-617 Radioligand Therapy by Integrating Clinical Biomarkers and Radiomic Features from Pretreatment PET/CT Images Radio Journal (Under Review) May 2024

Elmira Yazdani, Mahdi Sadeghi, Najme Karamzade-Ziarati, Parmida Jabari, Mahboobeh Asadi, Malihe Shahbazi Akbar, Habibeh Vosoughi, Saeed Reza Kheradpisheh, and Parham Geramifar

Conference Projects

• Online AI-Based Cognitive Assessment Platform 12th Basic and Clinical Neuroscience Congress (BCNC)

December 2023

Parmida Jabari, Sepehr Mousaviyan, Zahra Rezvani

Presented our research about an online AI-Based Cognitive Assessment Platform for Comprehensive Cognitive Evaluation.

Research Experience

Research Assistant

September 2023 – Present

Taarlab, University of Tehran

- Engaging in multiple research projects involving robotics and automation, focusing on enhancing robot decision-making, task execution, and object manipulation through neural networks and machine learning techniques.
- Achieved over 80% accuracy for rearrangement tasks using similarity learning

Research and Project Intern

June 2023 - November 2023

Institute for Research in Fundamental Sciences (IPM)

Tehran, Iran

- Developing an AI-powered game bot using Python, capable of playing a soccer game with users.
- Investigating the application of artificial intelligence in cognitive studies, exploring how AI can be used to understand and replicate human cognitive processes.
- Creating an eye-tracking tool to study human gaze behavior in response to different emotional stimuli using Python.

Teaching Experience

Teaching Assistant, Database Systems

Instructor: Prof. Mehrdad Ahmadzadeh Raji

Teaching Assistant, Image Processing

Instructor: Prof. Zahra Rezvani

Teaching Assistant, Machine Learning

Instructor: Prof. Hadi Farahani

Teaching Assistant, Basics Of Programming

Instructor: Prof. Saeed Reza Kheradpisheh

September 2024 – Present Shahid Beheshti University

Jan 2024 – June 2024

Shahid Beheshti University

Jan 2024 – June 2024

Shahid Beheshti University

September 2023 – Jan 2024

Shahid Beheshti University

Work Experience

Senior Backend Software Engineer

August 2023 – November 2024

Tecnotree Corporation

Remote

- Optimizing micro-services with Spring Boot and managed Camunda workflows.
- Developing a dynamic API-based system using MongoDB and JSON documents, leading to 30% performance enhancement.

Backend Software Engineer

October 2021 - July 2023

E-Farda

- Tehran, Iran
- Redesigning the Fanoos personal finance management app and adding new features like stock management and auto
- Implementing security and user convenience with a Python-based face authentication system and voice assistant for transactions.

Academic Projects

Dose Prediction Using Radiomic Features | Python

Dose Prediction Github

- Developed a dose prediction machine learning model using radiomic and clinical biomarkers features gathered from under-treatment cancer patients and their CT/PET images.
- Outcome: Achieved an R-squared of 0.7 for CT images and 0.8 for PET images, positioning it as a reliable tool for treatment planning.

Car Speed Detection Project | Python, OpenCV, PyTorch

Car Speed Detection Project Github

• Developed a car speed detection system using optical flow and machine learning, obtaining a mean average precision of around 0.5, and enabling accurate driving vehicle speeds in video feeds for traffic monitoring and analysis.

LLM Detection Project | Python

LLM Detection Github

- Implemented an LLM detection project to detect AI-generated texts using the DeBERTa model.
- Created a live dashboard for monitoring the model results.

Persian Sentiment Analysis | Python

Persian Sentiment Analysis Github

- Implemented a Persian sentiment analysis model using Bidirectional Long-Term Memory (BiLSTM) and Convolutional Neural Network (CNN) methods, categorizing the comments into negative and positive.
- Achieved an F1 score of over 0.8, ranking in the top 5 results among the groups.

Eye Tracking Project | Python

Eye Tracking Project Github

• Created an eye-tracking tool for tracking gaze movement and emotions for analyzing human behavior and eye movements while doing different psychological tasks.

Movie Recommendation System | Python

Movie Recommendation Hugging Face

Implemented movie recommendation systems using clustering, content-based, and collaborative filtering techniques.

Hand Writing Application | Kotlin

Hand writing application Github

• Developed an Android app enabling users to handwrite in designated areas and recognize handwritten characters.

English Proficiency

• IELTS Academic Test: Overall Band Score: 8.0 (C1 Level) October 2024

• Listening: 8.5 Reading: 8.0 Writing: 7.0 Speaking: 7.5

Technical Skills

Programming Languages: Python, Java, C, C++, SQL, Kotlin, JavaScript

Data Science and Machine Learning: Supervised and Unsupervised Learning, Artificial Neural Networks (ANN),

Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Natural Language Processing (NLP),

Reinforcement Learning

Tools and Libraries: pandas, NumPy, Matplotlib, Seaborn, SciPy, Scikit-learn, TensorFlow, Keras, PyTorch, XGBoost Databases: PostgreSQL, MySQL, Oracle, MongoDB, Redis

Software Development and Backend: Spring, Spring Boot, Flask, Django, Object-Oriented Programming (OOP), Compilers

Mathematics and Algorithms: Probability, Statistics, Optimization, Data Structures and Algorithms, Algorithm Design

Certificates

CS50 Harvard's Computer Science

Jan 2022 - May 2022

Harvard University

• https://certificates.cs50.io/39d107a0-2759-4541-af20-c541e3983c74.pdf?size=letter

Linux LPIC 1 Feb 2023 – April 2023

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References

• Dr. Saeed Reza Kheradpisheh (Head of the Computer Science Department), Artificial Neural

Networks, Neuroscience

Department: School of Computer Science and Mathematics

University: Shahid Beheshti University

Email: s_kheradpisheh@sbu.ac.ir

• Dr. Mehdi Tale Masouleh (Associate Professor), Robotics

Department: School of Electrical and Computer Engineering

University: University of Tehran Email: m.t.masouleh@ut.ac.ir

• Dr. Mehrdad Ahmadzadeh Raji (Associate Professor), Database Systems, Operating Systems

Department: School of Computer Science and Mathematics

University: Shahid Beheshti University

Email: m_ahmadzadeh@sbu.ac.ir