Fardin Rastakhiz

AI Engineer

fardin.rastakhiz@gmail.com

Education

Master of Computer Engineering

Branch: Artificial Intelligence and Robotics

Institute/University: Shahid Bahonar University of Kerman

Kerman, Iran

September 2021 - June 2024

GPA: 19.03

Bachelor of Information Technology Engineering

Branch: Information Technology

Institute/University: Gachsaran University of Applied Science 1

Gachsaran, Kohgiluyeh and Boyer-Ahmad, Iran

2018 - 2019

GPA: 18.10

Bachelor of Mechanical Engineering

Branch: Solid Design

Institute/University: Yasouj University

Yasooj, Kohgiluyeh and Boyer-Ahmad, Iran

2009 - 2015

GPA: 13.61

Language

English : Upper Intermediate

Social Network

linkedin.com/in/fardin-rastakhiz

FardinRastakhiz

Certificates

Teaching Techniques (CBT)

Institute: Technical and Vocational Training Organization

2015

Profile Summary

Artificial Intelligence engineer with a master's degree from Shahid Bahonar University of Kerman, GPA 19.03/20.0, specializing in deep learning, graph neural networks, language models, and optimization techniques. Interested in progress in advanced AI fields such as large language models, deep learning, and reinforcement learning and their applications, ready to advance in related areas with proficiency in relevant tools.

I have over 10 years of professional experience in programming, game and software development. The projects such as Pursuit of Redemption, Forbidden Speed, The Potential Jump in the gaming area, the Ahoog in the software field, and QuickCharNet and many others in the AI area are examples of these projects. I am interested in teamwork in a fair environment; for example, the game Pursuit of Redemption, the rapid calculation software for solving linear equations, the paper Beyond Words, and many other projects were done as a team. I also have the ability to handle multiple projects simultaneously on an individual basis.

Skills

Python	Pytorch
Machine Learning	Deep Learning
Unity	Artificial Neural Networks
Natural Language Processing (NLP)	Large Language Models
GitHub	C#
Latex	Object Oriented Programming Concepts
Research and Investigation	Docker
Game Development	C/C++
React	Microsoft ASP.NET
VS-Code	VS Community
Unit Testing Software	UML
Microsoft Word	Microsoft Excel
Microsoft PowerPoint	Adobe Photoshop Software
Autodesk 3ds Max	Teamwork
Jira Software	Trello Software

Work Experience

Research Assistant

Shahid Bahonar University of Kerman

Kerman, Iran

August 2023 - December 2024

Tasks and Achievements

Research on language models and their applications, creating several new architectures to improve noise resistance and reduce space and time complexity. The application of one of the designed architectures in the SEO and malware and spam detection domain was published in an article in IEEE Access.

Computer Engineer

Black Hills Media Company Gachsaran

Gachsaran, Kohgiluyeh and Boyer-Ahmad, Iran

August 2013 - Present

Tasks and Achievements

Designed, built, and developed various software, designed business plans in the software domain, registered 3 technologies in the tech market, membership in Yasouj University Incubator and the Science and Technology Park of Kohgiluyeh and Boyer-Ahmad Province, promoting the company to join the ecosystem of creative companies, familiarization with knowledge-based principles and research and development.

Volunteer Experience

Activity at Yasouj University Incubator

2013 to 2017

Formed a game and software development team, registered a technology in the tech market, and developed the Forbidden Speed game, along with obtaining a publishing license. Recognized as the Top Provincial Technologist in 2015. The product was approved as a creative product and became part of the ecosystem of creative companies.

Activity at the Science and Technology Park of Kohgiluyeh and Boyer-Ahmad Province

2019 to present

Registered two technologies in the tech market; participated in various management, human resources, and legal courses; held technical workshops; and worked on diverse products related to artificial intelligence and software.

Research

Beyond Words: A Heterogeneous Graph Representation of Text via Graph Neural Networks For Classification

Publisher: IEEE

March 2024

Link: https://ieeexplore.ieee.org/document/10475238

In this research, a method based on Graph Neural Networks (GNNs) for text classification is presented, which converts raw text into heterogeneous graphs. This method extracts both explicit and implicit details from the text without requiring adjustments to maximum length or padding. In this project, I deepened my understanding of Graph Neural Networks and Natural Language Processing, and it became a starting point for further work on developing new graph-based architectures for my projects.

QuickCharNet: An Efficient URL Classification Framework for Enhanced Search Engine Optimization

Publisher: IEEE

November 2024

Link: https://ieeexplore.ieee.org/abstract/document/10729268/metrics#metrics

The QuickCharNet model is a new architecture for classifying short texts and URLs, improving real-time processing accuracy and efficiency by combining character-level convolutional neural networks with token-level representation. Additionally, it analyzes the importance of optimal URL naming in improving SEO page rankings. Although this project is CNN-based, I leveraged my knowledge of GNNs to innovate on its architecture and enhance its efficiency and performance.

Projects

Development of an RTS Game

For: Vahid Randeh

February 2025

Implemented standard components for an RTS game by recognizing, modifying, and adjusting related packages. Developed three new components with standard architecture and wrote unit tests. Despite challenges in aligning customizations with the RTS Engine, successful integration was achieved through targeted modifications.

Link: https://github.com/FardinRastakhiz/RTSGame

Development of a Fast and Reliable Solver for the Equation Ax = b on Large and Sparse Matrices

For: Dr. Amir Raouf

August 2023

By researching preconditions, initial guess methods, and data structures, implementation was done with C/C++ and optimized for CPU and GPU using OpenMP, CUDA, and OpenCL. The result was a scalable and efficient library for solving these equations in various environments.

Link: https://github.com/FardinRastakhiz/PS_Solver

Honors

Top Provincial Technologist of Kohgiluyeh and Boyer-Ahmad Province

November 2015

Porosity Calculation Software

For: Personal (Science and Technology Park K.B.)

October 2022

In this project, software was developed to calculate the porosity and permeability of membranes. A new CNN model was trained for SEM image segmentation, and classical algorithms were used to extract parameters. Due to a lack of data, data augmentation methods were employed. The training was implemented in Python and PyTorch, with inference performed in Unity using C#.

Link: Available soon at fardintech.ir

Pursuit of Redemption Game

For: Amir Alizadeh

February 2022

A platformer and puzzle-style game developed using the Unity game engine. My role in this project involved programming, tool development, optimization, and debugging. All project issues were resolved through teamwork, and the game was successfully and professionally published on the Steam platform.

Link: https://store.steampowered.com/app/1313630/Pursuit_of_Redemption/

The Potential Jump Game

For: Amir Alizadeh

May 2022

This project involves developing a 2D educational, story-driven game with five levels, created in collaboration with an artist for character and environment design. A key technical challenge was building a pipeline to manage various events and art animations, allowing different stages of the game to be seamlessly connected like a puzzle.

Link: https://www.youtube.com/watch?v=Buicef1QHLk

Forbidden Speed Game

For: Amir Alizadeh

2014

An open-world racing game developed through teamwork over several years, which received a publishing license in both 2014 and 2015. In 2017, it was approved as a creative product within the ecosystem of creative companies. This project included many diverse components completed collaboratively, such as the urban traffic system, optimization of various gameplay elements, the game's story, city design, detailed 3D models, buildings and streets, vehicles, and many other aspects.

Other Projects

For: Others

With over a decade of professional experience, I have completed numerous projects in software and game development, which have strengthened my proficiency in various areas. These projects include NLP models and image processing using architectures such as GNN, CNN, Transformer, LSTM, and GRU; the games Forbidden Speed and Pursuit of Redemption; Ahoog software; the development of hyper-casual games; and the design of a personal website and management panel using React and ASP.NET Core.

Link: https://github.com/FardinRastakhiz?tab=repositories