Mobina Kashaniyan

(+98) 09393066411 | mobina.kashaniyan@yahoo.com | linkedin.com/mobinakashaniyan/ | github.com/iammobina

Education

Iran science and Technology University — Tehran, Iran
Computer Engineering, Bachelor of Science — *2017 – 2021*
GPA for last three semesters (32 credits) : 19.20/20 — *GPA: 17.15/20 (3.62/4)*

Farzanegn High School (NODET) — Tehran, Iran
Diploma in Mathematics and Physics — *2013– 2017*
National Organization for Development of Exceptional Talent — *GPA 19.37/20*

Interest

- Machine Learning, Deep Learning, Neural Networks
- Computer Vision, Image Processing
- Brain-inspired Artificial Intelligence
- Natural Language Processing
- Bioinformatics, Computational Biology
- Software Design and Architecture, Backend Development, Game Development

Selected Projects

DoNoghte | *Game Development* | *C#,Unity*
- This game is inspired by the two dots game and was officially released in Bazaar(Persian app store). Players should solve challenging puzzles by connecting the dots. Puzzles have random outcomes, its aesthetically pleasing, start easy, and progressively get more challenging.

Handwritten Optical Character Recognition | *Deep Learning* |*Tensorflow, Keras, Python, NumPy*
- Persian and Arabic Handwritten Character Recognizer to converts images of handwritten characters into machine-encoded texts using convolutional neural network.

Student's Average Predictor | *Deep Learning* | *Python, Keras*
- A neural-based system that predicts future grade point averages and probation status for students by using a multilayer perceptron network.

Kohonen's Self-Organizing Feature Map | *Deep learning* | *Python, NumPy*
- Take the 3D color vectors and map them onto a 2D surface in such a way that similar colors will end up in the same area of the 2D surface.

Arabic to Persian Machine Translation | *Deep Learning* | *Python, OpenNMT*
- A Neural Machine Translation model for translating Arabic proverbs and stories into Persian.

Artists Face Recognition | *Computer Vision* | *Python, Keras*
- Face recognition systems capable of recognizing faces and verifying them.

Keyword Detection System | *Machine Learning, Deep Learning* | *Python, Keras*
- A keyword detection system and trigger word will be "activate." Whenever the system hears "activate," a sound will be emitted.

Taxi Booking Framework | *Software Design* | *MySQL, SpringBoot*
- Developed a Taxi Booking framework using Java SpringBoot serving a REST API

Chameleon | *Game Development* | *C#,Unity*
- This game is inspired by color switch game in which the player crosses obstacles by changing the color also the player faces many different challenging playground.

Sad Tap (Sad Pou) Mini Game | *Game Development* | *C#,Unity*
- The objective is to tap sad Pous, which then turns them into happy Pous. Tapping happy Pous decreases time, and when the player is out of time, the game ends

Honors and Awards

- Leader of **Game Innovation Center at the Iran University of Science and Technology**
- **Permitted to directly apply for M.Sc. program** without taking the "National Entrance Exam for Graduate Schools" as an award for an exceptionally talented student at the Iran University of Science and Technology.
- **Ranked among top 10** undergraduate students at the Department of Computer Engineering, Iran University of Science and Technology for three years.
- **Ranked in the top 0.1%** in "National Universities Entrance Exam".
- Member of **Iran's National Elites Foundation.** (2020-2021)
- Getting admitted into the Iran University of Science and technology which is **ranked third among universities in Iran.**
- Member of **National Organization for Development of Exceptional Talent** for four years.
- Member of the **University's ACM Team**.
- **Giving a conference about data mining at University of Tehran** when i was a high school student.
- 4-year undergraduate fellowship from ministry of science, research, and technology.

Language Skills

- **Persian** : Native
- **English** : Advanced
  TOEFL-iBT: 102 (2.November.2022)
  (Reading: 26, Listening: 26, Speaking: 25, Writing: 25)

Selected Courses

- Computational Intelligence: A
- Design of Computer Games: A^+
- Theory of Languages & Automata: A
- Computer Systems Security: A^+
- Fundamentals of Compiler Design: A
- Engineering Mathematics: A^+
- Advanced Programming(C#): A^+
- Artificial Intelligence: A^+
- Natural Language Processing: A^+
- Foundations of Wireless Networks: A^+
- Fundamentals of Database Design: A
- Object-Oriented System Design: A^+
- System Analysis & design: A^+
- Software Engineering: A

Selected Coursework

Computational Intelligence

- Perceptron and Gradient Descent Implementation
- Image Recognition with Multi Layer Perceptron for MNIST
- Function approximation with MLP and RBF (Radial Basis Function)
- Genetic Algorithm for Finding Equation Roots
- Solving Inverted Pendulum problem with Fuzzy Logic
- Genetic algorithm for Traveling Salesman Problem

Artificial Intelligence

- Snake Game with Reinforcement Learning (QLearning, Python)
- Pac-Man Projects - UC Berkeley
- Markov Decision Process Project
- Artificial intelligence in Chess

System Analysis & design

- Clothing Website (Front-End Developer: HTML,CSS,JavaScript)
- Travel And Tourism Website (Back-End Developer: Django)

Wireless & Mobile Networks

- Discover the blind spots in the coverage of mobile networks
- Locating with RSSI (Received Signal Strength Indication)

Embedded & real-time system

- Designed a Complete Smart Room)

Computer Systems Security

- How I met your mother title sequence steganography
- AES algorithm for decryption and encryption

Experience

Scrum Master-Product Owner Feb. 2020 – Aug.2020 & Sep.2021– Feb.2022

Iran University of Science and Technology *Tehran, Iran*

- Communicate with team members and coaching them in self-management on a Web-based project
- Helping the team to understand the need of clarification in Product Backlog items
- Ensuring that all Scrum events take place

Back-end Developer Oct 2020 – Apr 2021

Dadeh Gostar Adak *Tehran, Iran*

- Developed a REST API using SpringBoot(Java)/Django(Python) and PostgreSQL/MySQL to store data
- Developed a full-stack web application using SpringBoot,React
- Familiar with Design Patterns , Software Development Methodologies

Technical Skills

Languages: C# , Java, Python, SQL (Postgres), JavaScript, HTML/CSS , Bash, Matlab, Verilog , C++, C , LaTeX
Frameworks: Unity, Spring Boot, Django, React , Scrum
Developer Tools: GitHub, GitLab , Google Cloud , VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse ,Xilinx ISE
Libraries: Keras ,Pandas, NumPy, Matplotlib , TensorFlow
Editor Tools: Adobe Photoshop , Adobe Premiere Pro , Adobe After Effects,Adobe Lightroom , Adobe Illustrator

Teaching Experience

I served as a teaching assistant in the following courses. Responsibilities included: Teaching sessions of classes; holding problem-solving sessions; designing projects, assignments, quizzes, midterm/final exams; grading and providing feedback.

Deep Learning Fall 2022

- Instructor: Dr. Marzieh Davoodabadi

Basics of Wireless Networks Fall 2022

- Instructor: Dr. Javad Azhari

System Analysis And Design Spring 2019 & Fall 2021

- Instructor: Dr. Mehrdad Ashtiani

Artificial Intelligence Spring 2021

- Instructor: Dr. Behrouz Minae Bidgoli

Computational Intelligence Spring 2021

- Instructor: Dr. Nasser Mozayani

Computer-aided design Spring 2021
- Instructor: Dr. Mahdi Fazeli (Bogazici University - Turkey)

Mobile Network Spring 2021
- Instructor: Dr. Abolfazl Dianat

Digital Logic Spring 2021
- Instructor: Dr. Amir Mahdi Hosseini Monazzah

Algorithm Design and Analysis Spring 2021
- Instructor: Dr. Marzieh Maleki Majd

Electric Circuit Fall 2020
- Instructor : Dr. Hadis Karimipor (University of Guelph - Canada)

Microprocessor and Embedded Design Fall 2020
- Instructor: Dr. Amir Mahdi Hosseini Monazzah

Data Structure Spring 2020
- Instructor: Dr. Nosratali Ashrafi Payaman

Theory of Languages and Automata Fall 2019
- Instructor: Dr. Hossein Rahmani

Advanced Programming (C#) Spring & Fall 2019-2020
- Instructor: Dr. Sauleh Etemadi , Marzieh Maleki Majd

Certificates & Online Courses

- Introduction to AI
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Sequence Models
- Convolutional Neural Networks
- Neural Networks and Deep Learning
- Structuring Machine Learning Projects
- Programming for Everybody (Getting Started with Python)
- Data Analysis with Python

Publications

Arabic to Persian Machine Translation Aug. 2021 – Present
- A machine translation paper using openNMT (in progress)

Persian and Arabic Handwritten Recognition Aug. 2021 – Present
- Persian and Arabic handwritten recognition (in progress)