Navid Dadkhah

Shahid Beheshti University, Tehran, Iran
Homepage Email GitHub LinkedIn

Education

Shahid Behehshti University **Tehran, Iran**
Bachelor of Science in Computer Engineering *Sep. 2020 to Feb. 2025[Expected]*

- **Cumulative GPA: (3.58/4)**
- **GPA of last two years: (3.68/4)**

Relevant Courses: GPA: 4/4

- Software Engineering
- Algorithms Design
- Software Testing
- Computer Simulation
- Artificial Intelligence
- Machine Learning
- Fundamentals of Computer Vision
- Deep Reinforcement Learning
- Data Structures
- Statistics and Probability
- Advance Programming
- Compiler Design

Salam Iranzamin High School **Tehran, Iran**
High School Diploma in Mathematics *Sep. 2017 to Jun. 2020*

- **Diploma GPA: (4.0/4.0)**

Research Interests

- Large Language Models
- Natural Language Processing
- Convolution Neural Network Methods
- Software Engineering
- Low-Resource Language Processing
- Deep Reinforcement Learning

Teaching Assistant Experience

- **Artificial Intelligence** Sep. 2024 - Present
  - Lectured by: Dr. Monire Abdoos
- **Software Engineering** Feb. 2024 - Present
  - Lectured by: Dr. Mehran Alidoostnia
- **Computer Vision** Sep. 2024 - Present
  - Lectured by: Dr. Shahabedin Nabavi
- **Research and Technical Presentation** Sep. 2024 - Present
  - Lectured by: Dr. Maedeh Mosharaf
- **Computational Intelligence** Sep. 2023 - Jan. 2024
  - Lectured by: Dr. Shahabedin Nabavi
- **Advance Programming** Sep. 2021 - Jul. 2023
  - Lectured by: Dr. Mojtaba Vahidi-Asl
- **Compiler Design** Sep. 2023 - Jan. 2024
  - Lectured by: Dr. Mehran Alidoostnia
- **Statistic and Probability** Sep. 2023 - Jan. 2024
  - Lectured by: Dr. Farshad Safaei
- **Introduction to programming** Sep. 2022 - Jan. 2023
  - Lectured by: Dr. Sadegh Aliakbary
- **Computer Architecture** Sep. 2023 - Jan. 2024
  - Lectured by: Dr. Dara Rahmati
- **Operating Systems Labratory** Sep. 2023 - Jan. 2024
  - Lectured by: Dr. Shahabedin Nabavi

Work Experience

Python Coding Mentor **Tehran, Iran (remote)**
Yasan Academy *Jun. 2023 - Sep. 2023*

- Teaching Python language to people who want to learn it from scratch like children or advanced levels such as Data-Analysis tools and libraries.

Front-end Developer Intern **Tehran, Iran**
Tradino, Shahid Beheshti Science and Technology Park *Feb. 2022 - Oct. 2022*

- Collaborated with a 2-person development team to build a market analysis application
- Front-end developer in the startup, building website with React and application with Flutter.

Projects

- *Lunar Lander with DRL* *Jun. 2024*
  - Implemented the Lunar Lander problem using Deep Q-Networks (DQN) and Dueling Double DQN (D3QN) architectures to justify the desired location.
  - It is trained in different epochs and generates rewards for each epoch.
- *Persian News Classification* *Mar. 2024*
  - The goal of this project is to develop a neural network model to classify news articles into their respective categories.
  - The dataset has been preprocessed with Tokenization and Feature Extraction.
- *Restaurant Management Website (Tameshk)* *Feb. 2024*
  - Developed a web application using Django and React for browsing restaurants, making reservations, and managing user access at different levels (viewers, customers, restaurant admins, and Tameshk admins).
  - Implemented secure routes, Swagger documentation, and SonarQube analysis to ensure security and code quality
- *Tron Game Agent* *May. 2023*
  - This game consists of two real-time agents that try to create more walls than their opponent while avoiding collisions with each other and the boundary walls. The Unity framework is based on Chillin's monitor games.
  - The algorithm devised for this game is a combination of a Genetic Algorithm and Minmax, where the Minmax algorithm is used as the fitness function for the Genetic Algorithm.
- *Graph Simulation Project* *Jun. 2023*
  - Developed simulations and analyzed various graph models (Erdős–Rényi, Watts–Strogatz, Barabási–Albert, bipartite, etc.) to calculate algebraic connectivity, spectral gap, degree distributions, and eigenvalue distributions
  - Created a user-friendly interface with Python's Tkinter to run simulations in Google Colab
- *Doodle Jump* *Mar. 2023*
  - A simple version of the Doodle Jump game with red square-shaped bugs, green broken platforms, and white platforms. The main character is a white rounded ball, which can be moved left or right with the 'j' and 'k' buttons. Implemented with Assembly 8086.

  More projects on my Github profile

Honors and Awards

- **Ranked** within the top 3% among 150000 participants (2020 nationwide university entrance exam)

SKILLS

- **Programming Languages:** Python, Java, C/C++, JavaScript, Dart, Assembly, Verilog, VHDL
- **ML/DL Frameworks:** PyTorch, TensorFlow2, Keras, OpenCV, Sickit-Learn, Pandas, Numpy, NetworkX
- **Web Development:** HTML, CSS, React, Flutter, Django, SQL
- **DevOps:** Windows, Ubuntu, Git

Certifications and Workshops

Data Analysis with Python **Sep. 2023**
Instructed by: Joseph santarcangelo *IBM | Coursera*

Supervised Machine Learning: Regression and Classification **Aug. 2023**
Instructed by: Andrew Ng *DeepLearning.AI | Coursera*