Navid Dadkhah

Shahid Beheshti University, Tehran, Iran

🏠 Homepage ✉ Email ⌗ GitHub in 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   - Artificial Intelligence   - Data Structures
- Algorithms Design   - Machine Learning   - Statistics and Probability
- Software Testing   - Fundamentals of Computer Vision   - Advance Programming
- Computer Simulation   - Deep Reinforcement Learning   - Compiler Design

Research Interests

○ Large Language Models   ○ Software Engineering
○ Natural Language Processing   ○ Applied Machine Learning in Bug Prediction
○ Low-Resource Language Processing   ○ Deep Reinforcement Learning

Research Experience

○ Feasibility of bug detection and bug fixing using prompt engineering and fine-tuning in large language Models   Ongoing Project

     - N Dadkhah and H Haghighi

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, Selenium
- **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*