

# Navid Dadkhah

Shahid Beheshti University, Tehran, Iran

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 Homepage

 Email

 GitHub

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## Education

### Shahid Beheshti 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

## Research Interests

- Large Language Models
- Applied Machine Learning in Software
- Natural Language Processing
- Deep Reinforcement Learning

## Research Experience

- Feasibility of bug detection and bug fixing using prompt engineering and fine-tuning in large language Models
  - N Dadkhah and Dr. Hassan Haghighi
- Ongoing Project

## Teaching Assistant Experience

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

## Work Experience

### Python Coding Mentor

Yasan Academy

Tehran, Iran (remote)

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

Instructed by: Joseph santarcangelo

Sep. 2023

IBM | Coursera

### Supervised Machine Learning: Regression and Classification

Instructed by: Andrew Ng

Aug. 2023

DeepLearning.AI | Coursera