Nima Hosseini Dashtbayaz

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Education

Amirkabir University of Technology (among the top 3 universities in Iran) Tehran, Iran
B.Sc. in Computer Science 2018 - 2022 (expected)

- Overall GPA: 19.02/20 (4/4)
- Ranked 1st GPA in my graduating class
- Thesis: A Survey of Methods in Few-Shot Domain Adaptation
- Selected Courses: Artificial Intelligence: A+, Linear Optimization: A+, Nonlinear Optimization: A, Numerical Linear Algebra: A+, Compilers: A+, Design and Analysis of Algorithms: A

Imam Reza High School Mashhad, Iran
Diploma in Mathematics and Physics 2014 - 2018

- Grade: 19.47

Research Interests

• Artificial Intelligence • Machine Learning • Deep Learning • Computer Vision
• Reinforcement Learning • Autonomous Vehicles • Recommender Systems

Skills

- **Programming Languages:** Python, Java, C, R
- **Libraries and Frameworks:** Keras, TensorFlow, Scikit-Learn, Numpy, Android
- **Environments and Tools:** Linux, Git, Postman
- **Miscellaneous:** LaTeX, Lindo

Research Experience

A Survey of Methods in Few-Shot Domain Adaptation Amirkabir University
Bachelor Thesis, Faculty of Mathematics and Computer Science September 2021 - present

- Supervisor: Dr. Mohammad Akbari
- A comprehensive survey of methods used in visual domain adaptation, with a focus on few/zero-shot adaptation

Automatic Metric Selection for K-means Amirkabir University
Statistics Laboratory, Faculty of Mathematics and Computer Science September 2021 - present

- Supervisor: Dr. Adel Mohammadpour
- Selecting an efficient metric for the K-means algorithm automatically by recognizing the input distribution

Driver Monitoring Amirkabir University
Data Science Innovation Center, Faculty of Mathematics and Computer Science July 2021 - September 2021

- Supervisor: Dr. Mohammad Akbari
- Implemented with Keras, Tensorflow 2, and OpenCV
- Face Recognition model based on MobileFaceNet for verifying the driver
- Driver's actions detection model based on MobileNetV3

Experience

Undergraduate Teaching Assistant — Amirkabir University
Faculty of Mathematics and Computer Science — February 2021 - present

- **Artificial Intelligence** - Instructor: Dr. Marjaneh Goodarzi
- **Introduction to the Theory of Computation** - Instructor: Dr. Fatemeh Zare Mirakabad

Chief Editor at Halgheh Journal — Amirkabir University
Students' scientific magazine of Mathematics and Computer Science faculty — January 2021 - present

- Chief Editor of the Computer Science section
- First issue was published in January 2021, and three more have been published since then.

Students' Scientific Chapter — Amirkabir University
Faculty of Mathematics and Computer Science — September 2020 - September 2021

- Head of Research Committee
- Held interviews with professors and online meetings.

RNS Assistant Team — Amirkabir University
Android Developer at RNS-Assistant health care startup — July 2019 - May 2020

- Designed and developed Symptom Checker application.

Projects

Recommender System for MovieLens Dataset — Amirkabir University
Artificial Intelligence Course - GitHub — Spring 2021

- Includes two separate models for collaborative and content-based recommending.
- Content-based model is based on Autoencoder and trained on movie tags.
- Collaborative model is based on the AutoRec paper and trained on ratings.

Nine Men's Morris Game — Amirkabir University
Artificial Intelligence Course - GitHub — Spring 2021

- Adversarial search using minimax algorithm
- Alpha-beta pruning
- Heuristics for estimating utility

Sudoku Solver — Amirkabir University
Artificial Intelligence Course - GitHub — Spring 2021

- CSP approach with backtracking algorithm
- Variable ordering with MRV heuristic
- Forward Checking

Leasy: An Android Application for Sharing Educational Content — Amirkabir University
Software Design Course - GitHub — Fall 2020

- The application was developed with Scrum Methodology.

Client - Server Model with Shared Memory — Amirkabir University
Operating Systems Course - GitHub — Spring 2020

- Server and client programs using shared memory
- The server can handle many clients simultaneously.
- Implemented in C with pthread and semaphores

Honors & Certificates

Ranked 1st Overall GPA in My Class (19.02/20) September 2018 - present
Computer Science Department, Amirkabir University

- Class of 70 students

Ranked Within the Top 0.8% in Iranian University Entrance Exam July 2018
Mathematics and Physics majors

- Ranked 1103 among 144000 students

Deep Learning Specialization
Certificate on Coursera.org

- Includes courses on Neural Networks, Deep Learning, Sequence Models, and Computer Vision.

Python for Data Science and Machine Learning Bootcamp
Certificate on Udemy.com

- Covers many topics in Data Science, Data Visualization, and Machine Learning.

Languages

- **Persian:** Native
- **English:** Fluent
  - TOEFL IBT scheduled for October 9th.
  - GRE scheduled for November 10th.