

Amir Babamahmoudi

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Education

Amirkabir University of Technology(Among Top 3 Universities in Iran)

Tehran, Iran

B.Sc. COMPUTER SCIENCE

2018 - 2022(expected)

- CGPA: 3.6/4.0 (17.25/20)
- Last two years GPA(67 credits): 3.81/4 (18.32/20)
- Bachelor Thesis: Finding the best metric for K-means algorithm by finding the distribution of data
- Selected Courses:
Artificial Intelligence: A+ Design & Analysis of Algorithms : A+ Linear Optimization: A+ Foundation of Matrix & Linear Algebra: A+
Compiler : A+ Numerical Linear Algebra: A

National Organization for Development of Exceptional Talents(Shahid Soltani1)

Karaj, Iran

DIPLOMA OF MATHEMATICS AND PHYSICS

2014 - 2018

- CGPA: 4.0/4.0 (19.04/20)

Research Interests

•Machine Learning •Deep Learning •Bioinformatics •Algorithms

Research Experience

Finding the best metric for K-means algorithm by finding the distribution of data

Amirkabir University

BACHELOR THESIS, FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

September 2021 - present

- Supervisor: Dr. Adel Mohammadpour
- Python, R
- Bregman Divergences

Driver Assistant

Amirkabir University

DATA SCIENCE INNOVATION CENTER, FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

July 2021 - September 2021

- Supervisor: Dr. Mohammad Akbari
- Keras, Tensorflow2, OpenCv
- Using MobileFaceNet for Face Recognition
- Recognizing Driver's Actions using MobileNetV3

Experience

Undergraduate Teaching Assistant

Amirkabir University

FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Spring 2021 - present

- **Artificial Intelligence** - Instructor : Dr. Marjaneh Goodarzi
- **Introduction to Programming(C Language)** - Instructor: Dr. Mohammad Akbari

Staff in ACM-ICPC University Competition

Amirkabir University

MEMBER OF CENTRAL TEAM FOR HOLDING A CONTEST FOR CHOOSING BEST TEAMS TO COMPETE IN WEST-ASIA
CONTEST.

Winter 2018

Projects

Recommender System on Goodreads Book Dataset

Amirkabir University

ARTIFICIAL INTELLIGENCE COURSE PROJECT- [GITHUB](#)

Spring 2021

- Simple based with weighted-rating
- Content based recommender using CountVectorizer and cosine-similarity from sklearn library

Solitaire game solver

ARTIFICIAL INTELLIGENCE COURSE PROJECT [GITHUB](#)

- Set a heuristic function
- A* algorithm

[Amirkabir University](#)

Spring 2021

Connect-four Game

FOR UNIVERSITY AI COURSE PROJECT- [GITHUB](#)

- Minimax algorithm
- alpha-beta pruning

[Amirkabir University](#)

Spring 2021

ETL Pipeline to synchronize two databases

UNIVERSITY DATABASE COURSE PROJECT- [GITHUB](#)

- Designed a 5nf database
- Create the database with postgresQL
- Create a warehouse to save changes with postgresQL
- Create a pipeline to sync two databases with python

[Amirkabir University](#)

Spring 2020

Algorithms of numerical analysis

UNIVERSITY NUMERICAL ANALYSIS COURSE PROJECT [GITHUB](#)

- Plot Runge counterexample with matplotlib
- LU with partial pivoting decomposition implementing with python
- Cholesky with partial pivoting decomposition implementing with python
- Finding root of equations with fixed point algorithm

[Amirkabir University](#)

Fall 2020

Honors & Certificates

Deep Learning Specialization Course: [Coursera.org](#)

[Coursera](#)

STRUCTURING MACHINE LEARNING PROJECTS , NEURAL NETWORKS AND DEEP LEARNING,IMPROVING DEEP NEURAL NETWORKS, SEQUENCE MODELS, CONVOLUTIONAL NEURAL NETWORKS

Fall 2020

An Intuitive Introduction to Probability: [Coursera.org](#)

[Coursera](#)

BAYES' THEOREM, NORMAL DISTRIBUTION, CONDITIONAL PROBABILITY

August 2020

Qualified for competing in West Asia(Tehran site) ACM-ICPC contest On behalf of Amirkabir University of Technology

[Sharif University of Technology](#)

THE ACM-ICPC CONTEST IS HELD EVERY YEAR AT AMIRKABIR UNIVERSITY OF TECHNOLOGY. TEAMS FROM ALL UNIVERSITIES ACROSS THE COUNTRY TAKE PART IN IT.

Winter 2018

- At last, three teams will be chosen to participate in West Asia contest on behalf of Amirkabir University of Technology

Ranked within the top 0.8%(1279 among 144437 students) in Iranian University Entrance Exam

[Iran](#)

THE COMPETITION IS INTENSE SINCE IT IS THE ONLY WAY TO GET ADMISSION FROM UNIVERSITIES

2018

Languages

Persian Native

English TOEFL IBT: 110 (Reading: 29, Listening: 29, Speaking: 24, Writing: 28)
GRE General: 308 (Q: 166, V: 142)

Skills

Programming Languages Python, Java,C/C++

Framework and Libraries Tensorflow, Keras, Numpy, Scikit-learn

DataBase MySQL, PostgreSQL

Other technologies Android studio, Git, Linux, Lingo, Gams

References

Dr. Adel Mohammadpour

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ASSISTANT PROFESSOR AT AMIRKABIR UNIVERSITY OF TECHNOLOGY

Dr. Mohammad Akbari

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ASSISTANT PROFESSOR AT AMIRKABIR UNIVERSITY OF TECHNOLOGY

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