

Kamyab Abedi

B.Sc. in Computer Engineering and Science, Shahid Beheshti University, Tehran, Iran

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Education

B.Sc. in Computer Engineering

Tehran, Iran

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

Sep. 2018 - May. 2023

- Received full scholarship from Shahid Beheshti University. (Tuition waiver)
- Supervisor: **Prof. Hamid Reza Mahdiani**
- One of **Iran's 4 top** universities.
- **Cumulative GPA:** 15.42/20 (3.08/4), **last two years:** 15.94/20 (3.15/4)

Diploma in Mathematics and Physics

Tehran, Iran

SHAHID BEHESHTI HIGH SCHOOL

Sep. 2014 - Sep. 2018

- Affiliate with the National Organization for Development of Exceptional Talents. (NODET)

Research Interests

Machine Learning | Computer Vision | Medical Image Analysis | AI for Healthcare

Publications

Distributing points on the surface of a sphere and create a Small-world geometric graph

B.Sc. THESIS

- In my research work, I have explored the problem of distributing many points on the surface of a sphere and creating a geometric graph. This problem arises in various applications, such as molecular modeling, wireless sensor networks, and computer graphics. The goal of this research was to develop efficient algorithms to distribute a large number of points on the surface of a sphere uniformly and then create a Small-world geometric graph connecting these points based on their proximity.
- Overall, this research provides a significant contribution to the field of geometric graph generation and distribution of points on a sphere. The developed algorithms can enable more efficient and accurate solutions for various applications.
- Implemented using python and networkx.

Skills

Programming Languages	Python, Java, Golang , C/C++ , R, MATLAB , JavaScript
ML/DL Frameworks	PyTorch, TensorFlow2, Keras, OpenCV, Sickit-Learn, Pandas, Numpy, PyG, NetworkX
Other Languages	HTML/CSS, Bash, SQL , VHDL, Verilog, Assembly 8086, LaTeX.
Back-end	Fiber, Echo, Express, Django, REST API
DevOps	Windows, Linux, Git

Work Experience

Work Experience

Machine Learning Intern

Tehran, Iran

AI MEDIC

Jul. 2023 - Oct. 2023

- During my internship at AI Medic, I had the opportunity to work on various projects related to artificial intelligence and healthcare. I worked on medical imaging, EHR analysis, smart assists, and medical NLP problems.
- Overall, my internship at AI Medic provided me with valuable experience in applying AI techniques to real-world healthcare problems. I gained a deeper understanding of the challenges and opportunities in this field and developed skills in data analysis, machine learning, and NLP. I am excited to continue working on cutting-edge projects at the intersection of AI and healthcare in the future.

Teaching Assistantship Experience

Computer Simulation Course (X4)

Tehran, Iran

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

Winter 2021 - Summer 2023

- **Head TA** | Under the supervision of **Dr. Farshad Safaei**

Artificial Intelligence & Expert System Course (X2)

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Armin Salimi-Badr](#)

Tehran, Iran

Winter 2021 - Summer 2022

Signal & Systems

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Armin Salimi-Badr](#)

Tehran, Iran

Winter 2022

Information Security Eng. and Mng. Course

FACULTY OF INDUSTRIAL ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Head TA | Under the supervision of [Dr. Seyedeh Atefeh Musavi](#)

Tehran, Iran

Winter 2022

Engineering Probability & Statistics Course (X2)

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Head TA | Under the supervision of [Dr. Farshad Safaei](#)

Tehran, Iran

Winter 2021, Summer 2022

Internet Engineering Course (X2)

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Ehsan Javanmardi](#)

Tehran, Iran

Winter 2021, Summer 2022

Advanced Programming Course

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Sadeh Aliakbary](#)

Tehran, Iran

Summer 2022

Linear Algebra Course

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Hamed Malek](#)

Tehran, Iran

Summer 2022

Research and Technical Presentation Course

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Under the supervision of [Dr. Mahmood Neshati](#)

Tehran, Iran

Summer 2020

Honors & Awards

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|------|--|--------------|
| 2018 | Ranked within the top 1% , among 156,000 participants in the annual Iranian University Entrance Exam for Bachelor's degree. | Tehran, Iran |
| 2017 | Ranked within the top 10 GPAs , among the 512 Students of the Math and Physics program at Shahid Beheshti School. | Tehran, Iran |

COMPETITIVE PROGRAMMING

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| 2022 | Ranked within the top 5% , among 2200 contestants, Digikala Cup, Software Engineering Contest in Quera website. | Tehran, Iran |
| 2021 | Ranked 68th , among 874 contestants, Code Star, Programming Contest in Quera website. | Tehran, Iran |

Relevant Courses

Undergraduate Courses	Artificial Intelligence & Expert Systems, Statistics & Probabilities, Computational Intelligence, Signals & Systems, Fundamental of Robotics, Algorithms, Linear Algebra.
Graduate Courses	Image Processing(Volunteer), Computer Vision(Volunteer), Neural Network(Volunteer)

Sample Project

Covid-19 in Iran | Python

PROJECT OF COMPUTATIONAL INTELLIGENCE COURSE

Sep. 2021

- An analysis on COVID-19 infections in Iran using Regression.

Web Crawler Detection | Python

PROJECT OF COMPUTATIONAL INTELLIGENCE COURSE

Sep. 2022

- An offline web crawler detection system using unsupervised algorithms such as Auto-encoders.

Machine Learning in Python | Python

PROJECT OF COMPUTATIONAL INTELLIGENCE COURSE

Sep. 2021

- Implementation of the most common algorithms in machine learning. Citizen Income Exceeding Prediction, Fraud Detection, Dogs Breed Classification, Persian News Classification,

"Snappfood" website clone | Golang-React

PROJECT OF INTERNET ENGINEERING COURSE

Jul. 2021

- In this project, we were instructed to build a Food Delivery application. The frontend of this project built with React JS and redux.
- Restful APIs for Food Delivery application developed using Golang.
- Final project of the Internet Engineering course, [Dr. Parham Alvani](#), Shahid Beheshti University.

The Matson Evaluation of Social Skills | Python

PROJECT OF DATA MINING COURSE

May. 2021

- The Matson Evaluation of Social Skills with Youngsters(MESSY) and its Adaptation for Iranian children and adolescents.
- Final project of the Data Mining course, [Prof. Alireza Talebpour](#), Shahid Beheshti University.

"Othello" game | Python

PROJECT OF AI COURSE

Jun. 2020

- Implementation of smart agent for Othello game.
- Implemented an appropriate MiniMax algorithm in order to play with the user.
- Pruned the MiniMax tree which can become really large using Alpha-Beta pruning algorithm.
- Added an Evolutionary Algorithm (EA) which helps us estimate the parameters of the MiniMax algorithm.
- Final project of the Artificial Intelligence and Expert Systems course, [Dr. Armin Salimi-Badr](#), Shahid Beheshti University.

"Lidingeram" Messenger Application | Java

PROJECT OF AP COURSE

Jun. 2019

- Developed a messenger application for Android phones.
- Used socket programming.
- Final project of the Advanced Programming course, [Dr. Mojtaba Vahidi-asl](#), Shahid Beheshti University.

Workshops & Courses

2021	Neural Networks & Deep Learning , Prof. Andrew NG.	Deeplearning.ai
2021	Hyperparameter Tuning, Regularization & Optimization , Prof. Andrew NG.	Deeplearning.ai
2021	Convolutional Neural Networks , Prof. Andrew NG.	Deeplearning.ai
2021	Introduction to Data Science , Prof. Christopher Brooks.	Coursera Website
2020	Machine Learning , Prof. Andrew NG.	Stanford
2020	Structuring Machine Learning Projects , Prof. Andrew NG.	Coursera Website
2020	Developing Android Apps Course , some Android course by Google.	Udacity Website
2020	The Hands On Machine Learning Course , Learn and understand Machine Learning from scratch.	Udemy Website
2019	Human-Centered Design , by University of California San Diego.	Coursera Website

Languages

Persian	Native
English	TOEFL iBT (Sep. 23, 2023) - 81/120 (Reading: 22, Listening: 21, Speaking: 17, Writing: 21)
German	A2

Memberships

- **Member of the Student Scientific Association**, Faculty of Computer Science and Engineering, Shahid Beheshti University.
- **Member of the Web Development Group**, Faculty of Computer Science and Engineering, Shahid Beheshti University.
- **Member of the AI Group**, Faculty of Computer Science and Engineering, Shahid Beheshti University.

References

[Dr. Farshad Safaei](#) | Assistant Professor

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Email: f_safaei@sbu.ac.ir

[Dr. Armin Salimi-Badr](#) | Assistant Professor

FACULTY OF COMPUTER SCIENCE AND ENGINEERING, SHAHID BEHESHTI UNIVERSITY

- Email: a_salimibadr@sbu.ac.ir

[Dr. Ehsan Javanmardi](#) | Postdoctoral Researcher

POSTDOCTORAL RESEARCHER, UNIVERSITY OF TOKYO

- Email: ehsan.jmardi@gmail.com