

Ali Tabaraei

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EDUCATION

B.Sc. in Computer Engineering

Sadjad University of Technology

Sep. 2016 – Sep. 2020

Mashhad, Iran

- CGPA: 17.85/20 (3.64/4)
- Last-two-year GPA: 19.21/20 (3.96/4)
- Thesis Title: Implementing a classifier to recommend top 5 products in a recommender system
- Thesis Grade: 19/20 (4/4)
- Thesis Description: Used Matrix-Factorization Model-Based Collaborative-Filtering approach on MovieLens 20M dataset to implement a recommender system which recommends top 5 movies for every single user, Under the supervision of Dr. Javad Hamidzadeh

AWARDS AND HONORS

- Ranked 2nd GPA among the graduating class at the end of Bachelor's, *Sadjad University of Technology, Mashhad, Iran, 2020*
- Reached final stage of the 25th National Computer Olympiad in Iran (the final competition was not held due to COVID-19 pandemic), *Mashhad, Iran, 2020*
- Ranked 39th in FUM Collegiate Programming Contest (FCPC 2019) among more than 500 nationwide teams, *Ferdowsi University of Mashhad, Mashhad, Iran, 2019*
- Ranked within the top 6% among approximately 160,000 participants in the Iranian University Entrance Exam for Bachelor's degree in Computer Engineering, *Mashhad, Iran, 2016*

RESEARCH INTERESTS

- Machine Learning
- Deep Learning
- Soft Computing
- Recommender Systems
- Big Data Analytics

SELECTED COURSES AND GRADES

- Artificial Intelligence, Dr. Reza Shamsaei, 20/20 (4/4)
- Computational Intelligence, Dr. Amir Farid Aminian Modarres, 20/20 (4/4)
- Multimedia Systems, Dr. Boshra Rajaee and Dr. Behzad Bakhtiari, 20/20 (4/4)
- Data Mining, Dr. Javad Hamidzadeh, 20/20 (4/4)
- Computer Vision, Dr. Amir Farid Aminian Modarres, 19.85/20 (4/4)

ACADEMIC PROJECTS

Internet of Things course | *C, Python, Django, Flutter* [[GitHub](#)]

- Designed and developed an intelligent system to monitor and control a remote greenhouse
- Track and control hardware via mobile application, Telegram bot, and text message (SMS)

Computational Intelligence course | *MATLAB, Python* [[GitHub](#)] [[GitHub](#)] [[GitHub](#)] [[GitHub](#)]

- Developed several Neural network algorithms, including Genetic, MLP, Adaline, and Perceptron

Multimedia Systems course | *MATLAB* [[GitHub](#)]

- Implemented a speech recognition application in MATLAB to recognize “Hi” from “Bye” with supervised learning using SVM classifier
- Used MATLAB app designer to create an application with user interface

Web course | *ASP.NET MVC5, HTML, CSS, JavaScript* [[GitHub](#)]

- Developed a website with authentication and authorization methods, email service, input validation, security control, database management, and CRUD operations in the admin panel

SEMINAR AND WORKSHOPS

Workshop Participation

- *Deep Learning for Image Processing, 6th Conference on Signal Processing and Intelligent Systems (ICSPIS 2020), Sadjad University of Technology*, one-day online workshop, 2020
- *Principles of writing a scientific paper, Dentistry Department of Ferdowsi University of Mashhad*, two-week length webinar, 2020
- *Mobile Application Development with React-Native, Scientific Society of Sadjad University of Technology*, two-week length workshop, 2018

Seminar Presentation

- **Computer Vision course:** Presented a paper called “A computer vision system for defect discrimination and grading in tomatoes using machine learning and image processing”, 2020
- **Internet of Things course:** A presentation was given on “what is API and how to connect a mobile application to embedded hardware core”, 2020
- **Seminar course:** A presentation was given on “React-Native vs. Flutter framework for mobile application development”, 2019

EXPERIENCE

Data Mining and Machine Learning Engineer *Khorasan Science and Technology Park* [[website](#)]

June 2020 – Present
Full-Time

- Gained experience with the most popular Data Science libraries in Python, such as NumPy, Pandas, Scikit-Learn, TensorFlow, Matplotlib, Seaborn, and many more, to manipulate and analyze the data, preprocess and visualize the data, train and test the models, and deploy them
- Used Python Flask framework to implement web-service API's and run the project on docker container
- Developed Python scripts to automate installation and execution of some projects as a Windows service or Linux daemon
- Handled SQL queries from Python on different RDBM's, such as MySQL, SQL-Server and SQLite
- Managed requests and queries with Postman and Insomnia applications
- Used GitLab for version control and team collaboration

Flutter Developer *Arashweb LLC.* [[website](#)]

Feb 2020 – Aug 2020
Internship

- Developed an application in the field of literature and Iranian poets from scratch
- Used the cutting edge JWT token-based authentication techniques
- Used the Bloc design pattern as a state management library to separate presentation from business logic, facilitating testability and reusability

- Implemented exception handling techniques to provide a reliable service under unexpected circumstances
- Managed and tracked tasks with Trello

Flutter Developer

Jul 2019 – Sep 2019

Internship

White Designers Studio [[website](#)]

- Developed an application in the field of health and wellness
- Offered a better user interface plan for new application to the team
- Experienced my first programming team work

Teaching Assistant

Sep 2017 – Jan 2020

Sadjad University of Technology, Mashhad, Iran
Tutored and guided over 350 students for a total of approximately 160 hours

- Artificial Intelligence, under supervision of Dr. Reza Shamsaei (2 separate classes)
- Algorithm Design, under supervision of Dr. Javad Hamidzadeh (2 separate classes)
- Algorithm Design, under supervision of Dr. Mahdi Salkhorde Haghghi (1 class)
- Discrete Mathematics, under supervision of Dr. Saeed Yazdanian (2 separate classes)

COURSE INSTRUCTOR

May 2020 – Jul 2020

Course Title: Mobile Application Development with Flutter (Persian)
Online course, available at YouTube [[YouTube Channel](#)]

TECHNICAL SKILLS

Programming Languages:

[Python](#) [MATLAB](#) [Dart](#) [C++](#) [JavaScript](#) [C#](#) [SQL](#)

Data Science Libraries:

[NumPy](#) [Pandas](#) [Scikit-Learn](#) [Matplotlib](#) [Seaborn](#) [Streamlit](#)

Markup Languages:

[L^AT_EX](#) [HTML](#) [XML](#) [Markdown](#)

Web and Application Frameworks:

[Flask](#) [Flutter](#) [ASP .NET](#)

Softwares and Tools:

[Anaconda](#) [Jupyter Notebook](#) [Visual Studio](#) [Arduino](#) [Navicat](#) [Postman](#) [Git](#) [Docker](#)

LEADERSHIP EXPERIENCE

- **Head of paper layout team** at executive committee in the 6th Conference on *Signal Processing and Intelligent Systems (ICSPIS 2020)*, Sadjad University of Technology, 2020 [[website](#)]
- **Executive team leader** at 5th *Sadjad I/O event*, Sadjad University of Technology, 2018

CERTIFICATES

- **Introduction to Machine Learning** by Duke University on Coursera
Certificate earned on April 28, 2021 [[credential](#)]
- **Mathematics for Machine Learning** by Imperial College London on Coursera
Certificate earned on November 29, 2020 [[credential](#)]
- **Statistics with Python** by University of Michigan on Coursera
Certificate earned on November 19, 2020 [[credential](#)]
- **Python for Everybody** by University of Michigan on Coursera
Certificate earned on October 7, 2020 [[credential](#)]

VOLUNTEER WORK

- Member of *Sadjad I/O* Student Group (student group to hold scientific events and conferences with the help of university faculty members), *Sadjad University of Technology*, 2017 – 2019
- Member of *Baran* Charity Student Group (student group to help homeless children with educational programs), *Sadjad University of Technology*, 2016 – 2018 [[website](#)]
- Member of *MehrYaran* Charity Group (a charity group to support older people and people with disabilities), *private group*, 2016

LANGUAGE

- **English:** Professional Working Proficiency
 - IELTS Academic Will be taken on August 1, 2021
 - GRE General Will be taken on November 1, 2021
- **French:** Elementary Proficiency
- **Persian:** Native Proficiency

REFERENCES

- Dr. Javad Hamidzadeh, Associate Professor at Computer and Information Technology Department
Sadjad University of Technology, Mashhad, Iran
Email: [J_hamidzadeh@sadjad.ac.ir](mailto:j_hamidzadeh@sadjad.ac.ir)
- Dr. Reza Shamsaei, Assistant Professor at Computer and Information Technology Department
Sadjad University of Technology, Mashhad, Iran
Email: r_shamsaei@sadjad.ac.ir
- Dr. Behzad Bakhtiari, Assistant Professor at Computer and Information Technology Department
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