Maryam Saeidmehr

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EDUCATION

Isfahan University of Technology — Isfahan, Iran
B.Sc. in Computer Engineering; GPA: 17.96/20 (3.84/4) — *Sept. 2017 − Feb. 2022*

National Organization for Development of Exceptional Talents — Isfahan, Iran
Diploma in Mathematics and Physics; GPA: 19.96/20 (4/4) — *Sept. 2013 − June 2017*

AWARDS & ACHIEVEMENTS

Ranked 10th Among More Than 90 Undergraduate Students in Computer Engineering Department, Isfahan University of Technology — Dec. 2017 − Feb. 2022

Ranked within the top 1% in 'National Entrance Exam for B.Sc Studies' in Iran Among More Than 148,000 Students in the Field of Mathematics and Physics — Aug. 2017

Admitted to NODET, National Organization for Development of Exceptional Talents — Aug. 2013

RESEARCH INTERESTS

Machine learning, Deep learning, Computer vision

RESEARCH EXPERIENCE

Isfahan University of Technology — Isfahan, Iran
Supervisor: Prof. Shadrokh Samavi — *Oct. 2020 − Sept. 2021*

- Proposed a deep convolutional neural network to efficiently detect COVID-19 from CT images using the transfer learning approach performing with a high degree of accuracy.

TEACHING EXPERIENCE

Isfahan University of Technology — Isfahan, Iran
Teaching Assistant for the course Compiler — *Feb. 2022 − June 2022*

- Assisted in creating course materials and procedures, grading, and conducting instructional workshops

Isfahan University of Technology — Isfahan, Iran
Teaching Assistant for the course Databases I — *Feb. 2021 − June 2021*

- Assisted in creating course materials and procedures, grading and conducting Q&A sessions

WORK EXPERIENCE

Rasad Sarmayeh Company — Isfahan, Iran
Data Analyst — *June 2023 − Oct. 2023*

- Analyzed and interpreted large sets of marketing and trading data to inform business decisions.
- Cleaned and prepared data for analysis, ensuring accuracy and reliability.
- Designed and implemented SSIS packages to automatically extract, transform, and load data for efficient interpretation and analysis.
- Created visualizations and reports to effectively communicate data insights to stakeholders.

Freelance — Isfahan, Iran
Full Stack Developer — *Jul. 2023 − Aug. 2023*

- Developed a web application that integrates education and gamification, combining homework assignment management with a real-time fighting game to motivate students.
- Utilized Django Rest Framework (DRF), Channels, and Celery to build the backend infrastructure of the web application.

- Implemented React.js and Material-UI (MUI) for the front-end development, ensuring a responsive and user-friendly interface.
- Implemented real-time features using WebSockets to enable live interaction between students during the fighting game.

Zamin Company   Isfahan, Iran
Software Engineer Intern   *June 2021 − Sept. 2021*
- Assisted in building beautiful user interface for clients without compromising functionality for aesthetics.
- Learned front-end object-oriented programming to develop client server systems.
- Wrote unit tests in Jest to ensure code was tested and 100% bug free.

NOTABLE COURSES

Fundamentals of Machine Learning (17.5/20)	Engineering Mathematics (17.5/20)
Artificial Intelligence (18.34/20)	Differential Equation (18/20)
Applied Linear Algebra (18.7/20)	Discrete Structures (19.4/20)
Signals and Systems Analysis (17.3/20)	Data Structures (20/20)
Multimedia Systems (17.1/20)	General Mathematics I (19/20)
Compiler (20/20)	General Mathematics II (19.5/20)
Databases I (19/20)	Game Theory (18.2/20)

ONLINE NOTABLE COURSES

- Neural Networks and Deep Learning, Coursera
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization, Coursera
- Structuring Machine Learning Projects, Coursera
- Convolutional Neural Networks, Coursera
- Sequence Models, Coursera
- Machine Learning A-Z™: Hands-On Python & R In Data Science, Udemy

SKILLS

Programming Languages: Proficient in C, C++, Python and Familiar with MATLAB, R

Frameworks & Toolkits: Tensorflow, Keras, NumPy, Scikit-Learn, Pandas, OpenCV, SSIS, Git

Web: HTML5, CSS3, Javascript, JQuery, ReactJS, Bootstrap, Django

Operating System: Linux (Ubuntu, Kali), Windows

Typesetting: Latex, Microsoft Office

PROJECTS

COVID-19 Detector | *GitHub* | *WebApp*   Sept. 2021 - Aug. 2022
- Implemented a deep convolutional neural network to detect Covid-19 from CT images using Keras and Tensorflow.
- Performed data pre-processing and augmentation using Python.
- Evaluated model performance using metrics such as accuracy, sensitivity, and specificity.
- Deployed model as a web application by using Django REST framework and ReactJS.

Image Watermarking in DCT Domain | *GitHub*   Dec. 2019 - Nov. 2019
- Designed and implement an adaptive blind image watermarking algorithm concerning edge pixel concentration, improving imperceptibility by about 24% compared to non-adaptive methods.
- Reviewed NC results of both adaptive and non-adaptive methods against JPEG attack.

Digit Recognition | *GitHub*   May 2023 - May 2023
- Designed and implemented a robust digit recognizer leveraging Tesseract, a powerful open-source OCR engine, to accurately identify English digits from images.
- Developed a visually appealing graphical user interface (GUI) that seamlessly integrates with the digit recognition system, providing a user-friendly and intuitive experience.