Nazanin Rezaee Qotb Abadi

UNDERGRADUATE COMPUTER ENGINEERING AND INFORMATION TECHNOLOGY STUDENT

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Education

Bachelor of Science in Computer Engineering and Information Technology   *Shiraz, Iran*

SHIRAZ UNIVERSITY OF TECHNOLOGY   *Sep. 2021 - PRESENT*

- **GPA: 18.13/20.00 (3.8/4)**

HIGH SCHOOL Diploma - SPECIALIZED IN EXPERIMENTAL SCIENCE   *Shiraz, Iran*

NATIONAL ORGANIZATION FOR DEVELOPMENT OF EXCEPTIONAL TALENTS (NODET)   *2017 - 2020*

- **GPA: 19.42/20.00 (4/4)**

Research Interest

- Artificial Intelligence
- Deep Learning & Machine Learning
- Computer Vision
- Image Processing
- Software Engineering

Honors & Awards

2021-Present	**Ranked 2nd among 30+ Students**, Department of Computer Engineering & Information Technology, Shiraz University of Technology	*Shiraz , Iran*
2021	**Ranked within the top 2% among 126000+ participants**, in the National University Entrance Exam for Bachelor's degree - Math and Physics	*Shiraz, Iran*
2013	**Admitted**, in the entry exam to NODET High Schools (National Organization for Development of Exceptional Talents)	*Shiraz, Iran*

Technical Skills

PROGRAMMING LANGUAGES

Proficient **Python, C, C++, C#, Java, HTML, CSS, JavaScript**,

Familiar **SQL, Assembly Languages, MATLAB, Kotlin, VHDL, LaTeX**,

ENGINEERING SOFTWARE

Proficient **Figma, Adobe Photoshop, Adobe XD**,

Familiar **Proteus, CodeVision AVR**,

GENERAL SOFTWARE

Proficient **Microsoft Office**,

Research Experience

Real-Time People Counting System - Deep Learning   *Oct. 2024 - Present*

RESEARCH ASSISTANT UNDER SUPERVISION DR. ALI SADEGHI   *Shiraz University of Technology*

- Developing a deep learning-based system using YOLOv8 to estimate the number of people in images with real-time detection capability.
- The system addresses challenges like crowd density and varying lighting conditions for applications.
- Tools & Technologies used: Python, PyTorch, YOLOv8, OpenCV, data annotation, hyperparameter tuning, real-time processing.

Work Experience

HAMPA Energy Engineering and Design Company (HEDCO)
Shiraz, Iran

INTERNED AT SOFTWARE DEVELOPMENT DEPARTMENT
Summer 2024

- Learned Front-End programming languages including **HTML**, **CSS**, and **JavaScript** and also designed a user interface for HTMS with **Figma**.

Council of Computer Engineering Student Scientific Association, Shiraz University of Technology
Shiraz, Iran

DEPUTY SECRETARY
Jun. 2023 - Jun. 2024

- Held university open day event.
- Prepared student and faculty meetings.
- Prepared referral day ceremony event for new students.
- Holding courses and contests related to the computer engineering field.
- Holding **ICPC** (International Collegiate Programming Contest) for SUTECH (Shiraz University of Technology) students.

VORNA Company
Shiraz, Iran

WORKED AS UI/UX DESIGNER
Aug. 2023 - Feb. 2024

- Designed user interface (UI) for some websites with **Figma**.
- Designed posters, brochures, visit cards with **Figma** and **Adobe Photoshop**.
- Please visit **Dribbble** to see some of my works.

Academic Projects

Cat Classifier Model
Course Project - Fall 2024

DEEP LEARNING SPECIALIZATION COURSE
Python

Designed and implemented a cat image classification model using two approaches:
1. Logistic Regression with a Neural Network Mindset: Developed a binary classifier for cat recognition using logistic regression. And implemented cost functions, gradient descent, and backpropagation from scratch.
2. Deep Neural Network for Image Classification: Built a multi-layer neural network with activation functions like ReLU and sigmoid.

Neural Networks for Handwritten Digit Recognition
Course Project - Fall 2024

ADVANCED LEARNING ALGORITHMS COURSE
Python

Implemented Binary Classification and also Multiclass Classification. In Binary classification, I used a neural network to recognize the hand-written digits zero and one. And in Multiclass classification, I also used a neural network but to recognize the hand-written digits 0-9.

Beauty Salon DataBase Management
Course Project - Spring 2024

DATABASE LAB, SUPERVISED BY ALI SAMANIPOUR
C# - SQL

Implementation of a Beauty Salon DataBase Management System that the database codes implemented in **SQL** and the user interface implemented in **C# - Windows Form Application**.

Burgess Algorithm
Course Project - Fall 2023

IT PROJECT MANAGEMENT COURSE, SUPERVISED BY DR. ALI SADEGHI
Python

Implementation of Burgess Algorithm that is considered as one of the famous methods for resources leveling in costruction industry in **Python**.

STRATEGO Game
Course Project - Spring 2022

ADVANCED PROGRAMMING COURCE, SUPERVISED BY DR. PIROOZ SHAMSINEJAD
Java

Implementation of the **STRATEGO** Game in Java. Utilized key programming concepts such as: Object-Oriented Programming (OOP) and Data structures (arrays, lists) for game state management. Also implemented game features, including Player move validation and game rules enforcement.

SUDOKU Game
Course Project - Winter 2022

FUNDAMENTALS OF PROGRAMMING COURSE, SUPERVISED BY DR. PIROOZ SHAMSINEJAD
C++

Implementation of Soudoku Game in **C++**. Gained experience with core programming concepts including Control structures (loops, conditionals) and Functions.

Teaching Experience

Fall 2023	**Data Structure**, Holding Tutorial Class, Problem solving, Grading assignments.	*Dr.Rasool Esmaeilyfard*
Fall 2022	**Fundamentals of Programming**, Holding Tutorial Class, Problem solving, Grading quizzes and assignments.	*Dr. Pirooz Shamsinejad*

Courses

Deep Learning Specialization   *Present*
ONLINE (COURSERA), LECTURER: ANDREW NG

Machine Learning Specialization   *Fall 2024*
ONLINE (COURSERA), LECTURER: ANDREW NG

Mathematics for Machine Learning and Data Science Specialization   *Summer 2024*
ONLINE (COURSERA), LECTURER: LUIS SERRANO

Artificial Intelligence Course   *Feb. 2024 - Sept. 2024*
ONLINE, HOLDING BY IAAA (IRAN ANNUAL AI AWARD)   *Certificate*

Python Course   *Summer 2023*
SHIRAZ UNIVERSITY OF TECHNOLOGY, LECTURER: OMID RAJAEI   *Certificate*

Languages

English   **Persian**
FLUENT   NATIVE
The TOEFL iBT test: To be taken on JAN. 25. 2025

References

1.Dr. Pirooz Shamsinejad
ASSISTANT PROFESSOR
Department of Computer Engineering and Information Technology (Shiraz University of Technology)
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email: p.shamsinejad@sutech.ac.ir
Phone(Work): (+98) 71 3735-2808

2.Dr. Ali Sadeghi
ASSISTANT PROFESSOR
Department of Computer Engineering and Information Technology (Shiraz University of Technology)
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3.Dr. Rasool Esmaeilyfard
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