

ALI MIRAMIRKHANI

ali.miramirkhani@gmail.com

Phone: (+98) 937-547-7822

Website: miramirkhani.ir



Department of Computer Engineering
University of Isfahan,
Isfahan Province, Iran

RESEARCH INTEREST	<ul style="list-style-type: none">❖ Computer Vision❖ Digital Image processing❖ Machine Learning❖ Data Mining	
EDUCATION	BS Isfahan University , Computer Engineering GPA: 3.67/4.0	Sep. 2020
RELATED COURSES	Data Mining (A+), Artificial Intelligence and Expert Systems (A+), Semantic Web (A+), Internet Engineering (A+), Object-Oriented Systems Design (A+), Software Engineering (A), Systems Analysis and Design (A), Designing Programming Languages (A+)	
RESEARCH AND EXPERIENCE	Bachelor's Thesis University of Isfahan, Isfahan, Iran Advisor: Dr. Ahmad R. Naghsh-Nilchi <ul style="list-style-type: none">● Refining two-dimensional grayscale raw angiographic X-ray images (DICOM) dataset to provide an open-source standard database● Produce noise-free, labeled congestion grade, enhanced and segmented coronary arteries map database Internship Payam Pardaz Co, Isfahan, Iran Advisor: Mr. Hassani <ul style="list-style-type: none">● Developing automated End-to-End (E2E) test for an enterprise angular web app● Using protractorJS and Jasmine testing frameworks in JavaScript language	Sep. 2020 Aug. 2018
INDEPENDENT STUDIES	AI for Medical Diagnosis Coursera online deep learning course Offered by Deeplearning.ai Fundamentals of Digital Image and Video Processing Coursera online image processing course Offered by Northwestern University, Dr. Aggelos K. Katsaggelos Python 3 Image Processing Masterclass Udemy online image processing course	Nov. 2020 July 2020 Dec. 2019
NOTABLE COURSE PROJECTS	<ul style="list-style-type: none">❖ Refining X-ray 2D grayscale medical image dataset, including registration, segmentation, and classification using scikit-image, OpenCV, and pydicom libraries	

- ❖ Implement supervised text **classifier** to detect mobile spam text messages, deploy **Decision Tree** and **KNN** models, **Naive Bayes** using **N-Grams** feature generator, **TF-IDF** as feature weighting method and **F1-Score** for accuracy evaluation with **python** and **scikit-learn**
- ❖ Design, implement and evaluate a **Genetic Algorithm**, **Simulated Annealing** from scratch to find an admissible solution for 4*4 and 9*9 sudoku tables in **C#** language
- ❖ Implement a query search system based on **Vector Space Model**, using **TF-IDF** weighting and **Cosine Similarity** concepts for ranking the related documents
- ❖ Design and implement **Boolean Information Retrieval Model** on text corpus for boolean and positional search queries using **python**
- ❖ Implement a learning model to calculate product relationship using the **FP-Growth** concept in **RapidMiner**
- ❖ Implement supervised classification using a **decision tree (id3, Cart)**, **rule model**, and **KNN classifier** to detect intoxication in a mushroom dataset
- ❖ Develop **Linux Shell** program to fully create/delete/check system users using **Bash Script**
- ❖ Design and implement an **8-bit ALU** module using **Verilog HDL** and simulate in **Modelsim** to run specific instruction with a connected ROM
- ❖ Design and implement a **16-bit CPU** module from scratch in **Logisim** software

HONORS & AWARDS

- Honor student**, Ranked **3rd** among the students of Computer Engineering - software engineering group Sep. 2020
- Ranked within the **top 5%** of the National University Entrance Exam Aug. 2015
- Honor student**, Ranked **1st** in highschool, diploma in mathematics and physics (GPA: 4.00) July 2014

LANGUAGES

English: Advanced (IELTS **7.5**, C1 CEFR, TOEFL iBT equivalent = **102-109**)
 IELTS Academic scores: Listening 8, Reading 7.5, Writing 6, Speaking 7.5

Persian: Native Language

SKILLS

Programming and Data-Base Languages: Python, C#, C/C++, Java, Web (HTML, CSS), JavaScript, Bash-Script, Prolog, MS-SQL, MySQL, SQLite

Software and Frameworks: Scikit-Learn, OpenCV, .Net Framework, RapidMiner, PyDicom

Software development: Git, ProtractorJS, Jasmine Framework, Selenium, MS Visio, Scrum

Hardware Tools and Languages: Logisim, MIPS Assembly, Modelsim, Verilog

Typesetting: LaTeX, MS-Word, Markdown, JSDoc, XPath

Operating Systems: Linux (Ubuntu, Red Hat), Windows