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Isfahan-Iran

Website

## HIGHLIGHTS

- Fourth-year CS student specializing in ML, ranked in top 10% of class
- 4+ years Python expertise, proficient in cloud deployment and ML frameworks
- Strong ML theory foundation with hands-on experience in predictive modeling
- Aspiring AI researcher, passionate about advancing machine learning and data science

## EDUCATION

### Bachelor of Science (BS) of Computer Science

University of Isfahan  
2020 - 2024 (Ongoing)

- Overall GPA: 3.18/4.0
- Last 2 years GPA (62 credits): 3.47/4.0
- Ranked in the **top 10%** of class

## RESEARCH INTERESTS

- Machine Learning
- Natural Language Processing (NLP)
- Information Retrieval
- Computer Vision
- Adversarial Machine Learning
- Machine Learning Operations (MLOps)

## SELECTED COURSES

- Special Topics in Computer Science (Machine Learning/Deep Learning): A+ (19/20)
- Artificial Intelligence: A+ (18.5/20)
- Data Structures and Algorithms: A (17.8/20)
- Nonlinear Optimization: A (17.8/20)
- Linear Optimization: A (17/20)
- Algorithm Design: A (16.1/20)

## ACADEMIC EXPERIENCE

### Teaching Assistant at the University of Isfahan

Algorithms and Data Structures  
Fall 2023

- Developed course materials and designed challenging coding problems
- Graded exams and assignments, providing constructive feedback
- Collaborated with faculty to enhance course content and student learning outcomes
- Demonstrated strong organizational, communication, and problem-solving skills

## SKILLS

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**Programming Languages:** Python, C++

**Databases:** MySQL, PostgreSQL, SQL Server

**Machine Learning:** Scikit-learn, TensorFlow, PyTorch, NumPy, Pandas,

**Web Development:** FastAPI, Django, Streamlit

**Cloud & Deployment:** AWS, Docker

**Data Collection:** Selenium, BeautifulSoup, Scrapy

**NLP:** NLTK, spaCy, LlamaIndex

**Development Tools:** Git, Linux

## PROJECTS

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### RAG System with Embedded Knowledge Base ([github](#))

- Developed RAG system from scratch using PDF-based knowledge base
- Implemented embedding pipeline with **NLTK**, **spaCy**, and **sentence-transformers**
- Integrated **LLM** with custom retrieval for context-aware responses
- Designed user interface using **Streamlit** for easy interaction

### RAG API with Dynamic Document Processing ([github](#))

- Developed RAG API using **FastAPI** for efficient text-based question answering
- Integrated **LlamaIndex** for indexing and **LlamaParse** for flexible text preprocessing
- Deployed containerized service using **Docker** for scalability
- Created intuitive web UI with **Streamlit** for seamless user interaction

### Stock Market Prediction using LSTM ([github](#))

- Developed **LSTM**-based model for stock price prediction using **PyTorch**
- Implemented custom data preprocessing pipeline with **sklearn** for feature scaling and sequencing

### Local LLM-Powered Chatbot with Web Interface ([github](#))

- Developed **chatbot** using **Streamlit** for UI and **Ollama** for local LLM integration
- Implemented API calls to local Ollama server for model interactions
- Designed user-friendly chat interface with message history management

### Search-Augmented LLM Query System ([github](#))

- Implemented Retrieval-Augmented Generation (RAG) using **Whoosh** for indexing and search
- Integrated **LLM** (e.g., Groq) for enhanced question-answering capabilities
- Developed user interface with **Streamlit** for easy interaction
- Containerized the application using **Docker** for seamless deployment

### Music Streaming Service API ([github](#))

- Designed a comprehensive database system using SQL and database design principles
- Developed a robust and efficient API using **FastAPI** and **Python**
- Implemented RESTful architecture and API best practices

### Reinforcement-Learning-search ([github](#))

- Implemented **Q-learning** algorithm for optimal path finding in Snake and Ladders game
- Developed **A\*** search algorithm as an alternative approach for comparison

### Chronic Kidney Disease Prediction Model ([github](#))

- Implemented advanced preprocessing techniques (**Isolation Forest**, **KNNImputer**, feature encoding)
- Optimized models using **GridSearchCV**, **RandomizedSearchCV**, and **BayesSearchCV**
- Developed and compared 7 ML models including **Linear/Logistic Regression**, **Random Forest**, **XGBoost**
- Achieved 99% accuracy with XGBoost and Random Forest, ensuring good generalization

## COURSES & CERTIFICATES

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- Supervised Machine Learning: Regression and ClassificationSupervised ([credential](#) )
- Advanced Learning AlgorithmsAdvanced Learning Algorithms ([credential](#) )
- Unsupervised Learning, Recommenders, Reinforcement Learning ([credential](#) )
- Coursera Deep Learning Specialization
- Pytopia Statistics, Data Processing, Visualization, and Machine Learning
- Pytopia Python Programming
- ZTM PyTorch for Depp Learning
- Docker & Kubernetes: The Practical Guide

## EXTRACURRICULAR ACTIVITIES

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### Algorithm Section Head, 'Psycity' Nationwide Coding Contest

*Summer 2023 - Winter 2024"*

- Designed algorithmic questions for the programming section
- Managed a team of problem setters
- Oversaw both on-site and online participation for approximately 100 contestants
- Actively involved in competition management during the 3-day event"

### Computer Science Club

*University of Isfahan  
2020 - 2024 (Ongoing)*

- Regularly attended meetings and workshops
- Contributed to fostering a community of tech enthusiasts on campus

## EXAM SCORES

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**IELTS:** Scheduled for September