# **POORIYA JAMIE**

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# Computer Science Enthusiast | Proficient in Machine Learning, Human-Computer Interaction, Computer Science Education, and Algorithm Design | Seeking Graduate Programs

# Education

### Amirkabir University of Technology (Tehran Polytechnic), B.Sc. in Computer Science

Sep 2021 - present

o GPA: 18.53/20 (Major Subject GPA: 4/4, Top 10%)

### National Organization for Development of Exceptional Talents (NODET), Diploma

Sep 2017 - Jan 2021

## **Publications**

#### **Published**

Chauhan, Anishka, Mayur, Pratham, Gokarakonda, Yeshwanth Sai, **Jamie, Pooriya**, and Mehrotra, Naman. "Indian Stock Market Prediction using Augmented Financial Intelligence ML" (January 17, 2024). <u>SSRN</u> | <u>DOI</u>

#### **Under Review**

**Jamie, Pooriya**, Hajihashemi, Reyhaneh, and Alipour, Sharareh. "Utilizing ChatGPT in a Data Structures and Algorithms Course: A Teaching Assistant's Perspective." Under review in SIGCSE TS 2025.

### **Forthcoming**

Honarmand, Melika, Shandilya, Sahaj, Li, Junzhang, Mayur, Pratham, **Jamie, Pooriya**, and Treleaven, Philip. "Emotion-aware Musical Recommendation System using Contextual Analysis."

# Research Experience

### University of Twente

#### • Research Intern: AI-assisted Assignment Assessment System

Jul 2024 - Present

- Collaborating with Dr. Mohammadreza Farrokhnia on developing an AI-assisted assignment assessment system.
- Utilized ChatGPT to provide constructive feedback to students and improve areas in their assignments.
- Amirkabir University of Technology (Tehran Polytechnic)
  - Research Assistant: Deep Learning Approaches for Imbalanced Data in Fraud Detection Feb 2024 Present
    - Currently working as an RA in the NORC Lab, supervised by Prof. Mehdi Ghatee and Behnam Yousefimehr
    - Exploring various deep learning architectures, such as CNNs, RNNs, and GANs, to handle imbalanced datasets in fraud detection tasks.
- Tehran Institute for Advanced Studies (TeIAS)

### • Research Assistant: ChatGPT's Impact on Education

Oct 2023 - Jul 2024

- Worked under the supervision of Dr. Sharareh Alipour, Analyzed the potential of ChatGPT in research and teaching domains, focusing on its influence on educational practices.
- Conducted studies, including surveys and interviews, to understand ChatGPT's adoption and utilization by educators.
- University College London (UCL)

### • Research Assistant: Emotion-aware Musical Recommendation System

Dec 2023 - Apr 2024

- Collaborated with Prof. Philip Treleaven and a team on developing a novel music recommendation system using contextual analysis of song lyrics.
- Focused on extracting sentiment-rich summaries from song lyrics using a combination of unsupervised and supervised techniques, including Text-Ranking, Bert-Extractive-Summarizer, and GPT-3.5 insights.

#### • Research Intern: Augmented Financial Intelligence Project

Jan 2023 - Dec 2023

- Enhanced machine learning infrastructure and led literature review under the supervision of Prof. Philip Treleaven.
- Developed a platform for forecasting financial trends in the Indian market using machine learning techniques.

# **Teaching Experience**

**Data Structures and Algorithms Head** 

Under the supervision of Dr. Sajad Shirali-Shahreza

**Numerical Calculations** 

o Under the supervision of Dr. Mostafa Abbaszadeh

**Foundation of Numerical Analysis** 

o Under the supervision of Dr. Mostafa Shamsi

Algorithmic Game Theory

o Under the supervision of Dr. Masoud Seddighin

**Principles and Techniques in Data Science** 

o Under the supervision of Dr. MohammadAmin Fazli

Data Mining

o Under the supervision of Dr. Maryam Amirmazlaghani

Data Structures and Algorithms Head

o Under the supervision of Dr. Sajad Shirali-Shahreza

Linear Algebra

Under the supervision of Dr. Ali Sharifi-Zarchi
Algorithmic creativity and Python programming

o Under the supervision of Dr. Ali Sharifi-Zarchi

**Data Structures and Algorithms** 

o Under the supervision of Dr. Sajad Shirali-Shahreza

Foundation of Combinatorics

o Under the supervision of Dr. Zeinab Akhlaghi

**Introduction to Computer and Programming** 

o Under the supervision of Dr. Mohammad Akbari

Advanced Programming & Workshop

o Under the supervision of Dr. Mohammad Mahdi Bejani

Tehran Polytechnic and Sharif University, Feb 2024 - Jun 2024

Tehran Polytechnic, Feb 2024 - Jun 2024

Tehran Polytechnic, Feb 2024 - Jun 2024

Sharif University of Technology and TeIAS, Jan 2024 - Jun 2024

Sharif University of Technology, Jan 2024 - May 2024

Tehran Polytechnic, Oct 2023 - Jan 2024

Tehran Polytechnic, Oct 2023 - Jan 2024

Sharif University of Technology, Oct 2023 - Nov 2023

Sharif University of Technology, Jul 2023 - Sep 2023

Tehran Polytechnic, Feb 2023 - Jul 2023

Tehran Polytechnic, Feb 2023 - Jul 2023

Tehran Polytechnic, Oct 2022 - Jan 2023

Tehran Polytechnic, Sep 2022 - Jan 2023

# Other Experiences

#### **Tester and Mentor of Short Courses**

DeepLearning.AI, Aug 2023 - Jan 2024

 Took on the role of testing and mentoring for short courses, ensuring quality, effectiveness, and supporting participants' learning process.

#### **Data Science Bootcamp**

Quera, Aug 2023 - Nov 2023

 Participated in a 12-week intensive data science program covering topics such as Data Analysis, Machine Learning, Data Visualization, Data Mining, Deep Learning, Power BI, SQL, NLP, and Soft Skills. Completed industry-relevant projects for practical experience.

### **Mentor of AI For Everyone Course**

DeepLearning.AI, Oct 2022 - Aug 2023

o I try to answer learners' questions about different fields of artificial intelligence in discourse at the DeepLearning.AI website.

### **Programming Contest Coordinator**

Tehran Polytechnic

Designed algorithm and mathematical programming questions for a competition with 600+ participants.

### Research Interests

- Machine learning (including deep learning, reinforcement learning, and unsupervised learning)
- Computer Science Education (LLMs in Education, Learning Analytics, AI in Education, Educational Technology, and Educational Data Mining)
- Human-Computer Interaction (HCI) and Human-AI interaction
- Computer Vision and Image Processing
- Data Mining and Data Science Applications
- Artificial Intelligence
- Foundational Models
- Algorithm Design and Analysis
- Graph Machine Learning

# **Skills**

- Analytical Problem-solving
- Machine Learning Algorithms
- Educational Technology Tools

- Deep Learning Techniques
- Data Collection, Cleaning, Preprocessing and Visualization
- User Experience (UX) and User Interface (UI) design principles
- Data Mining Techniques
- Web Development
- LLM Techniques
- Qualitative and Quantitative Methods
- Pedagogical Knowledge
- Persistent and Curious
- Communication Skills
- Teamwork and Collaboration

### **Practical Skills**

- Machine Learning libraries: TensorFlow, PyTorch, scikit-learn
- Computer Vision libraries: OpenCV
- Data manipulation and analysis libraries: NumPy, Pandas
- Data visualization libraries: Matplotlib, Seaborn
- Deep Learning frameworks: Keras
- Programming languages: Python, C, C++ and R
- Web Development: HTML, CSS, WordPress

# Major Courses (GPA 4/4)

- Introduction to Computer and Programming (20/20)
- Principles of Computer Systems (19.5/20)
- Data Structures and Algorithms (19.5/20)
- Linear Optimization (18.6/20)
- Data Mining (19.82/20)
- Theoretical Fundamentals of Calculation (19.5/20)
- Design & Analysis of Algorithms (20/20)
- Artificial Intelligence and Workshop (19.5/20)
- Topics in Mathematics and Its Applications: Image Processing (20/20)
- Foundation of Numerical Analysis (20/20)
- Principles of Operating Systems (20/20)

### Certifications

- TASK-ORIENTED BOOTCAMP IN DATA SCIENCE
- Unsupervised Learning, Recommenders, Reinforcement Learning
- Advanced Learning Algorithms
- Linear Algebra For Machine Learning and Data Science
- Python for Data Science
- Mathematics for Machine Learning: Linear Algebra
- Supervised Machine Learning: Regression and Classification
- AI For Everyone
- Improve Your English Communication Skills Specializations
- Introduction to User Experience Design
- Advanced Algorithmic thinking and Data structure
- Fundamental of C++ programming and algorithm thinking

Quera, Nov 2023

Coursera, DeepLearning.AI, Stanford University, Aug 2023 Coursera, DeepLearning.AI, Stanford University, Jul 2023

Coursera, DeepLearning.AI, Stanford University, Mar 2023

Uplimit, Mar 2023

Coursera, Imperial College London, Nov 2022

Coursera, DeepLearning.AI, Stanford University, Nov 2022

Coursera, DeepLearning.AI, Sep 2022

Coursera, Georgia Institute of Technology, Aug 2022 Coursera, Georgia Institute of Technology, Feb 2022

Quera, Jun 2020 Quera, May 2020

# Languages

• Persian: Native proficiency

• English: Professional working proficiency

# Reference

1. Dr. Sajad Shirali-shahreza

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