

# REZA YARBAKHSH

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Dubai, UAE

## EDUCATION

- University of Tehran** 2022 - 2024  
*M.Sc. in Business Administration* Tehran, Iran
  - GPA: 3.94/4.00 (18.33/20)
- Sharif University of Technology** 2017 - 2022  
*B.Sc. in Computer Engineering* Tehran, Iran
  - GPA: 3.81/4.00 (18.01/20)
- National Organization for Development of Exceptional Talents** 2013 - 2017  
*High School Diploma* Shiraz, Iran
  - GPA: 4/4 (19.60/20)

**Relevant Courses:** Linear Algebra (A+), Probability and Statistics (A+), Advanced Information Retrieval (A-), Artificial Intelligence (A+), Machine Learning (Graduate) (B), Introduction to Bioinformatics (A+), Advanced Programming (A+)

## RESEARCH INTERESTS

- Applied Machine Learning
- Natural Language Processing
- Artificial Intelligence

## SKILLS

- Programming:** Python (tensorflow, pandas, matplotlib, numpy, seaborn, sklearn, asyncio, django), C, Java, SQL
- Machine Learning:** RF, XGB, SVM, CNN, LSTM, RNN, ARIMA, BERT, GPT, VAR
- DevOps:** Docker, Kubernetes, CI/CD, AWS Lambda, ELK, Grafana

## PUBLICATIONS

- Yarbaksh, R.,** Baghshah, M. S., Karimaghaei, H. (2023). **Predicting risk/reward ratio in financial markets for asset management using machine learning.** \*Expert Systems with Applications\*. DOI: [10.48550/arXiv.2311.09148](https://doi.org/10.48550/arXiv.2311.09148). (1st revision under review)
- Ghadimi-Moghadam, A. K., Askari, S., **Yarbaksh, R.,** Mahmoudi, T., Ghatee, M. A., Ghadimi-Moghadam, F., Mortazavi, S. M. J., Mortazavi, A., Silver, L. (2023). **Data-driven Insights into COVID-19 Severity Prediction using Machine Learning and Demographic Features.** \*Biomedical Physics Engineering Express\*. (Submitted)
- Yarbaksh, R.,** Mortazavi, S. A. R., Mortazavi, S. J. M., Parsaei, H., Rad, D. (2022). **Artificial intelligence effectively predicts the COVID-19 death rate in different UK cities.** \*Journal of Intelligent Fuzzy Systems\*. DOI: [10.3233/JIFS-219286](https://doi.org/10.3233/JIFS-219286). (Published)

## RESEARCH EXPERIENCE

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### • SmartQuant | Sharif ICT Innovation Center

Jul 2020 - Feb 2021

Tehran, Iran

- Analyzed and predicted crypto market trends, with an emphasis on Bitcoin, utilizing Gradient Boosting and Deep Learning models, achieving state of art results.
- Spearheaded a team, which later formed the foundation for Nextasys. Our work focused on producing a trading bot that accurately predicted Bitcoin market movements using ML. Automated reports on trade performance were delivered monthly to traders.

### • Applied Machine Learning Projects

Tehran, Iran

- Bites and Moods: Unraveling the ties between nutrition and depression using Deep Learning in NHANES data 2024
- Investigating potential relationships between blood types and the death rates due to COVID-19 across different countries 2023

## PROFESSIONAL EXPERIENCE

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### • Cobblestone | Jumeirah Lake Towers

Aug 2021 - Present

Dubai, UAE

- Headed the AlgoTrading software team, conceptualizing and realizing CBot – a pioneering intelligent trading dashboard, capable of optimizing trader orders and identifying prime trade values. CBot, currently accounts for more than 80% of the trades and 90% of the profit in the company.

### • Nextasys | Azadi Innovation Factory

Feb 2021 - Feb 2022

Tehran, Iran

- Co-founded Nextasys following our achievements at SmartQuant, focusing on advancing AI and ML-driven algorithmic trading bots.
- Led a 5-member team on R&D, backed by the Wallex grant, to further expand on our initial research and refine trading bot capabilities.

## TEACHING ASSISTANT EXPERIENCE

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### • Probability and Statistics, Dr. Ali Sharifi Zarchi

Fall 2019

Sharif University of Technology

- Created notebook handouts on statistical hypothesis testing.
- Designed homework and exam questions for the joint distribution section.
- Held recitation classes.

### • Advanced Programming, Dr. Mahdi Mostafazadeh

Spring 2019

Sharif University of Technology

- Organized the course project in 5 phases, synchronized with the course.
- Developed a multiplayer card game project with a naive AI opponent.

### • Fundamentals of Programming, Dr. Mahdi Mostafazadeh

Fall 2018

Sharif University of Technology

- Assisted with homework questions throughout the course.
- Selected, reviewed, and built test cases for homework assignments.

## HONORS AND AWARDS

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- Placed 38th out of 150,000 in the National University Entrance Exam

2017

## VOLUNTEER EXPERIENCE

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- Technical Staff, AI Challenge 2019, 2020
- Executive Staff, Data Days Contest 2019
- Executive Staff, ACM Asian Regional Contest in Iran 2018

## ADDITIONAL INFORMATION

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**TOEFL Score:** 107 (Reading:29, Listening:29, Speaking:26, Writing:23)

**GRE Score:** 327 (Quantitative Reasoning: 170, Verbal Reasoning: 157, Analytical Writing: 4)

## REFERENCES

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1. **Dr. Mahdieh Soleymani Baghshah, PhD**  
Associate Professor Department of Computer Science and Engineering , Sharif University of Technology, Tehran, Iran  
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2. **Nizar Ajeeb**  
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3. **Seyed Mohammad Javad Mortazavi, PhD**  
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