REZA YARBAKHSH

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 linkedin | ⊙ your-username |

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 Languages:** 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

- **Yarbakhsh, 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. (1st revision under review)

- Ghadimi-Moghadam, A. K., Askari, S., **Yarbakhsh, 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)

- **Yarbakhsh, 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. (Published)

RESEARCH EXPERIENCE

- **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 Nextrasys. 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*

  ◦ Investing potential relationships between blood types and the death rates due to COVID-19 across different countries *2023*

PROFESSIONAL EXPERIENCE

- **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.

- **Nextrasys | Azadi Innovation Factory** *Feb 2021 - Feb 2022*
  Tehran, Iran

  ◦ Co-founded Nextrasys following our achievements at SmartQuant, focusing on advancing AI and ML-driven algorithmic trading bots.

  ◦ Led a 5-member team on RD, backed by the Wallex grant, to further expand on our initial research and refine trading bot capabilities.

TEACHING ASSIATANT EXPERIENCE

- **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

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

2017

Volunteer Experience

https://www.overleaf.com/project

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

Additional Information

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

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

References

1. **Dr. Mahdieh Soleymani Baghshah, PhD**
   Associate Professor Department of Computer Science and Engineering , Sharif University of Technology, Tehran, Iran
   Email: soleymani@sharif.edu
   Phone: (+98)21 6616 6654
   Relationship: [Research Supervisor]

2. **Nizar Ajeeb**
   Chief Technology Officer (CTO) of Cobblestone, Dubai, United Arab Emirates
   Email: nizarajeeb@coblestoneenergy.com
   Phone: +971 4 569 3493
   Relationship: [Supervisor]

3. **Seyed Mohammad Javad Mortazavi, PhD**
   Professor of Medical Physics, Department of Medical Physics and Engineering, Shiraz University of Medical Sciences, Shiraz, Iran
   Email: mmortazavi@sums.ac.ir
   Phone: +98 71 1234 9332
   Relationship: [Research Supervisor]