HOSSEIN (OMID) MOSTAFAEI NIA

hoseinmostafaeinia@gmail.com | +98 (937) 379 0369

hosseinmostafaeinia | **Hossein-Mostafaei-Nia** | **omidmno2** | **0009-0001-4151-6287**

PROFESSIONAL OBJECTIVE

A Master of Operations Research and Data-Driven Decision Scientist proficient in Python, Machine Learning, Deep Learning, teaching, and data analysis. I have extensive experience in Artificial Intelligence and optimization, and I'm passionate about applying AI to optimize complex systems. Currently seeking a transformative PhD to advance the frontiers of AI and Decision Sciences.

EDUCATION

Master of Industrial Management - Operations Research   Sep 2018 - Mar 2022

Kharazmi University, Tehran, Iran
- GPA: 3.5/4.0
- Thesis: Stock Market Prediction by Using Machine Learning and Deep Learning Approaches
  (DOI: 10.13140/RG.2.2.26049.94561)
- Supervisor: Omid Mahdi Ebadati E., Ph. D.
- Co-supervisor: M. Afshar Alam, Prof.
- Thesis Grade: 4.0/4.0

Bachelor of Textile Engineering - Textile Chemistry and Fiber Science   Sep 2012 - Feb 2017

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
- Last One Year GPA: 3.26/4.0
- Thesis: Measuring Velocity of Wicking in Threads that Used in Microfluidic Devices
  (DOI: 10.13140/RG.2.2.19968.20489)
- Supervisor: Mohamad Haghighat Kish, Prof.
- Thesis Grade: 4.0/4.0

RESEARCH INTERESTS

- AI-driven Operations Research, Interdisciplinary Optimization, and Automated Decision Systems
- Data Science Applications in Supply Chain Management, Urban Mobility and Transportation Analytics
- Business Analytics, Healthcare Analytics, and Social Network Analysis
- ML, DL, Deep Reinforcement Learning, and NLP for Complex Problem Solving
- Energy Management, Sustainability, Smart Cities and Urban Analytics
- Predictive Analytics, Time Series Forecasting, and Data Visualization for Decision Support

TEACHING EXPERIENCE

Teaching Assistant   Jan 2019 – Jun 2019

Operations Management and IT Department, Kharazmi University, Tehran, Iran
- Instructed graduate students in the Advanced Production and Operations Management course under the primary supervision of Dr. Amir-Reza Abtahi.
- Taught Operations Management: Creating Value by Russell S. and Taylor B. W. as part of the course curriculum.
- Facilitated student learning through lectures, discussions, and assignments, including problem-solving activities.
- Provided additional support to students and evaluated progress through grading and feedback.
- Contributed to students' academic success, evidenced by their excellent performance in the final exam.

PUBLICATIONS

1. "Candlestick Chart Analysis and Deep Learning Approaches for Predicting Stock Market Trends." Mostafaei Nia, H., Ebadati, O. M., & Alam, M. A., 2023. Submitted.
2. "Predicting Stock Market Movements: A Comparative Analysis of Technical Indicators, Image Conversion Techniques, and Deep Learning Approaches." Mostafaei Nia, H., Ebadati, O. M., & Alam, M. A., 2023. Submitted.
3. "Exploring the Potential of LSTM and 1D CNN Algorithms for Accurate Tehran Stock Exchange Price Prediction." Mostafaei Nia, H., Ebadati, O. M., & Alam, M. A., 2023. Manuscript in preparation.
4. "Modelling Synthetic Thread as a Microfluidic Device." Presented at the 12th International Seminar on Polymer Science and Technology, 2016.

SELECTED COURSES

Advanced Operational Research	4.0/4.0	**Managerial Decision Making**	4.0/4.0
Advanced Production and Operations Management	4.0/4.0	**Business Process Re-engineering**	4.0/4.0
Artificial Intelligence and Metaheuristics Methods	4.0/4.0	**Advanced Management Theories**	4.0/4.0
System Dynamics	4.0/4.0	**Business Ethics**	4.0/4.0
Statistical Analysis	3.0/4.0	**Simulation and Queueing Theory**	3.0/4.0

ACADEMIC CHALLENGES & DEVELOPED PROJECTS

1. Conducted revenue forecasting for a new ice cream shop located Vanak Square in Tehran, Iran, using data from the article **'Estimated Sales and Investment Costs to Produce and Retail Gelato'**, as part of a case, *August 2021*

2. *Presented chapter 15 of* **"Management" by Robbins and Coulter**, *in the Advanced Management Theories course, February 2021*

3. *Conducted a* **strategic analysis of Aria Company, including examining its mission, values, stakeholders, VRIO framework, SWOT analysis, life cycle, supply chain, and outsourcing** *as part of the Advanced Strategic Management course, January 2020*

4. *Presented the article "***Supply Chain Risk Management for Critical Commodities***" by Keilhacker and Minner, in the System Dynamics course, November 2019*

5. *Presented* **Strategic Options Development and Analysis (SODA) and Jointly Understanding Reflecting Negotiating (JOURNEY MAKING)** *in the Soft Operational Research course, December 2019*

6. *Presented the article "***Machine Learning, Ethics, and Law***" by Miller, in the Business Ethics course, December 2019*

7. *Presented the article "***Prediction of Electric Vehicle Charging-Power Demand in Realistic Urban Traffic Networks***" by Arias et al., in the Simulation and Queueing Theory course, June 2019*

8. *Presented the article "***Fuzzy AHP-TOPSIS Approaches to Prioritizing Solutions for Reverse Logistics Barriers***" by Sirisawat and Kiatcharoenpol, in the Managerial Decision Making course, June 2019*

9. *Conducted* **a simulation of the process of receiving, producing, and delivering orders to customers for Luleh va Mashinsazi Iran Company** *using Bizagi software, Spring 2019*

10. *Presented the article "***A Strategy for Third-party Logistics Systems***" by Kim et al., in the Advanced Strategic Management course, October 2019*

11. *Developed* **a Power BI dashboard for NYC Taxi & Limousine Commission - Trip Record Data** *as part of the Advanced Management Information System course, October 2018*

12. *Presented the article "***The Canadian Pacific Railway transforms operations by using models to develop its operating plans***" by Ireland, in the Advanced Operational Research course, November 2018*

13. *Attended the first conference on* **Microfluidics and its Applications in Medicine and Engineering**, *March 2016*

14. *Certificated for Workshop Completion on "***Design of Small Commercial Reverse Osmosis Desalination Units: Challenges and Techniques***" at International Conference on Membrane Science & Technology, November 2015*

15. *Certificated for Workshop Completion on "***Main Troubles in Reverse Osmosis Desalination Units***" at International Conference on Membrane Science & Technology, November 2015*

PROFESSIONAL DEVELOPMENT

- Data Analysis BootCamp — *Rahnema College | Oct 2023*
- Sequences, Time Series, and Prediction — *Coursera | Oct 2021*
- Natural Language Processing in TensorFlow — *Coursera | Sep 2021*
- Convolutional Neural Networks in TensorFlow — *Coursera | Aug 2021*
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning — *Coursera | July 2021*
- Learn R — *Codecademy | Mar 2021*
- Learn SQL — *Codecademy | Mar 2021*
- SQL — *Sololearn | Mar 2021*
- Task-Oriented Course in Artificial Intelligence and Machine Learning — *Quera | Dec 2020*
- Data Science with Python — *Sololearn | Nov 2020*
- Python Core — *Sololearn | Nov 2020*
- Machine Learning course — *Sololearn | Oct 2020*
- Advanced Python Programming and Object-Oriented Thinking Course — *Quera | Sep 2020*
- Project-Oriented Corse in Web Development with PHP — *Quera | Aug 2020*
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization, and Optimization — *(Coursera)*
- Sequence Models — *(Coursera)*
- Neural Networks and Deep Learning — *(Coursera)*
- Structuring Machine Learning Projects — *(Coursera)*
- Introduction to Machine Learning — *(Coursera)*
- LPIC1 (including 101 and 102) version 500 — *(YouTube@geekingjadi)*

TECHNICAL SKILLS

- Programming Languages: *Python, R, SQL, PHP, MATLAB*
- Data Science Libraries: *NumPy, pandas, Matplotlib, Keras, TensorFlow, scikit-learn,...*
- Data Analysis: *Data Cleaning, Data Visualization, Data Analysis, Statistical Modeling, A/B testing,...*
- Tools: *Power BI, Tableau, SPSS, GAMS, Microsoft Office Suite*

- Machine Learning and AI Algorithms
- Deep Learning Frameworks
- Optimization Techniques
- Git Version Control
- Linux Proficiency

WORK EXPERIENCE

Data Analyst   Nov 2023 – Now

SnappFood, Tehran, Iran

- Vendor Journey Business Data Analyst
- A subsidiary of Rocket Internet in Iran, an online food delivery business leader with 1700 employees and over 16 million users.

Data Analyst Intern   Aug 2023 – Oct 2023

Rahnema College, Tehran, Iran

- Collaborated with team "StatStoryTellers" to optimize NYC bike-sharing operations.
- Project: Shared Bike Service Optimization
- Analyzed traffic data, and balanced supply-demand.
- Developed bike advertising and maintenance strategies.
- Explored trip patterns, and identified demand influencers.
- Data Preprocessing, Business Metrics, BI Tools, Python Programming, Storytelling with Data, Statistical Inference, A/B Testing

Data Scientist Intern   Jan 2022 - May 2022

Hamtech, Tehran, Iran

- Conducted a project to predict Bitcoin prices using Twitter API and machine learning
- Collaborated with the data science team to refine predictive models and algorithms
- Presented findings and recommendations to management on the potential value of social media data for financial forecasting.

Visual Merchandiser   May 2014 - Feb 2018

Debenhams, Tehran, Iran

- Worked as a visual merchandiser and sales consultant, creating eye-catching displays to showcase merchandise, collaborating with store management and staff to optimize layouts, and exceeding sales targets through exceptional customer service.

AWARDS AND SUCCESS

- Full scholarship for bachelor's and master's degrees.
- Ranked 739 in Iran National Exam among 64,230 applicants for master's degree.
- Top 5% among 230k participants in the Iranian National University Entrance Exam.

LANGUAGE SKILLS

English: Full professional proficiency
*Academic **IELTS**: **Overall 6.5** | March 2023*

Persian: Native

REFERENCES

Dr. Omid Mahdi Ebadati
Email: **ebadati@khu.ac.ir**
Associate Professor, Director, Bureau of International Scientific Cooperation & Head, Department of Operation Management and Information Technology, Kharazmi University, Tehran, Iran
Supervisor for my master's thesis

Prof. Mohamad Haghighat Kish
Email: **mhkish@aut.ac.ir**
Professor, Department of Textile Engineering, Amirkabir University of Technology, Tehran, Iran
Supervisor for my bachelor's thesis

Prof. M. Afshar Alam
Email: **aalam@jamiahamdard.ac.in**
Professor, Vice Chancellor & Dean, School of Engineering Sciences and Technology, Jamia Hamdard, New Delhi, India
Co-supervisor for my master's thesis

Dr. Amir-Reza Abtahi
Email: **abtahi@khu.ac.ir**
Assistant Professor, Department of Operation Management and Information Technology, Kharazmi University, Tehran, Iran
My former Teaching Assistantship supervisor