Hamid Nakhaei

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hamid-nakhaei

Education

- **M.Sc. in Industrial Engineering** *2020 - 2023*
  Sharif University of Technology (SUT), Tehran, Iran | GPA: 4/4
  Thesis: *A Reinforcement Learning Approach for Dynamic Pricing*; [Link]
  Supervisor: *Prof. Shahram Shadrokh*

- **M.Sc. in Mechanical Engineering** *2017 - 2020*
  SUT, Tehran, Iran | GPA: 3.2/4
  Thesis: *Mechanical Design and Fabrication of a Parallel Hybrid Vehicle Powertrain Simulator*
  Supervisor: *Prof. Mahmoud Saadat Foumani*

- **B.Sc. in Mechanical Engineering** *2013 - 2017*
  SUT, Tehran, Iran | GPA: 3.4/4
  Thesis: *Systematic Design of Oilfield Cementing Trucks*
  Supervisor: *Prof. Jamal Arghavani*

Selected Courses

Operations Analytics: 20/20
Theory of Probability and Its Applications: 19.7/20
Stochastic Programming: 19.5/20
Operations Research 2: 18.7/20
Forecasting and Time Series Analysis: 18.6/20

Research Interests

- **Applications**
  Revenue Management, Healthcare Operations
- **Methodologies**
  Stochastic Modelling, Optimization under Uncertainty, Reinforcement Learning

Papers

Work in Progress

A Reinforcement Learning Approach for Demand Response Dynamic Pricing *2024*
with Shahram Shadrokh

Honors & Awards

Ranked ***1st*** among the graduating class of 2022, Industrial Engineering Department, SUT *2022*
Ranked ***4th*** in the University Entrance Exam for master's degree in Industrial Engineering *2020*

Experience

Teaching Experience (TA)

Operations Research 2, Mohammad Modarres Yazdi — *Winter 2022, Fall 2022*
Theory of Probability and Its Applications, Seyed Taghi Akhavan Niaki — *Fall 2021, Winter 2022*
Operations Analytics, Nafiseh Sedghi — *Winter 2022*
Microeconomics 1, Mohammad Vesal — *Fall 2021*

Professional Experience

Sales Planning Analyst, Solico Group, Tehran, Iran — *Sep. 2022 - July 2023*
Executive Team Member, Sharif Entrepreneurship Center, Tehran, Iran — *Jan. 2016 - Dec. 2017*
Intern (Production Department), Iran Khodro Company, Tehran, Iran — *July 2015 - Sep. 2015*

Academic Projects

Daily surgery demand forecasting in an operating room; [Link] — *2021*
Programming language: R

Earning manipulation detection using different classifiers; [Link] — *2021*
Programming language: R

Electricity demand forecasting using time series methods; [Link] — *2021*
Programming language: Python

Prediction of hotel booking cancellations using machine learning algorithms; [Link] — *2021*
Programming language: R

Diabetes prediction using Naive Bayes, random forest, and logistic regression; [Link] — *2020*
Programming language: Python

Skills

- **Computer Skills**
  - **Programming Languages:** Python, R, MATLAB, LaTeX
  - **Modelling:** Visio, CPLEX
  - **Data Analysis:** PowerBI, Minitab, Microsoft Excel
- **Language Skills**
  - **Persian:** Native
  - **English:** Fluent
    TOEFL iBT: 102/120

Workshops

Statistics in Data Science using Minitab and R, Tose'e Institute
IBM Data Science Professional Certificate, IBM, Coursera

References

- Professor Shahram Shadrokh
  shadrokh@sharif.edu
- Professor Seyed Taghi Akhavan Niaki
  niaki@sharif.edu
- Professor Mohammad Modarres Yazdi
  modarres@sharif.edu
- Professor Mohammad Vesal
  m.vesal@sharif.edu