

Amin Aminimehr

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Google scholar/Amin Aminimehr | github.com/aminaminimehr

Education

University of Cincinnati, Ph.D. in Business Analytics at Carl H. Lindner College of Business 2024 – Present

Ershad Damavand University, Master's in Financial Engineering and Risk Management 2018 – 2022

- **Thesis:** A study on the characteristics of TSE index return data and introducing a regime switching prediction method based on neural networks.

University of Tehran, Bachelor's in Financial Management 2014 – 2018

Research Interests

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- Deep Learning
 - Machine Learning
 - Explainable AI
 - Finance
 - Empirical Asset Pricing
 - Statistics

Publications

A comprehensive study of market prediction from Efficient Market Hypothesis up to late intelligent market prediction approaches. 2022

A.Aminimehr, A.Raofi, A.Aminimehr, A.Aminimehr
10.1007/s10614-022-10283-1

ParsBERT Post-Training for Sentiment Analysis of Tweets Concerning Stock Market. 2021

M.Pouromid, A.Yekkehkhani, M. Oskoei, *A.Aminimehr*
10.1109/CSICC52343.2021.9420569

Stock Market Dynamics Through Deep Learning Context 2024

A.Aminimehr, *A.Aminimehr*, H.Moradi Kamali, S.Eetemadi, S.Hoseinzade,
10.48550/arXiv.2405.09932

The Strength of Convolutional Neural Network in Financial Distress Prediction 2023

A.Aminimehr, A.Aminimehr, M.Pouromid, A.Yekkehkhani,
10.22051/jfm.2023.39916.2669

A study on the characteristics of TSE index return data and introducing a regime switching prediction method based on neural networks. 2021

A.Aminimehr, S.Bajalan, A.Aminimehr, H.Hekmat
10.52547/jfmp.11.34.145

A Time Step Cascade CNN-LSTM neural network for predicting adjusted close price of 5 largest firms in Tehran stock exchange. 2021

A.Aminimehr, A.Aminimehr, M.Pouromid, A.Yekkehkhani,
No DOI

The Role of Feature Engineering in Prediction of Tehran Stock Exchange Index based on LSTM. 2020
A.Aminimehr, A.Raofi, A.Aminimehr, A.Aminimehr
10.22099/ijes.2021.39877.1739

Teaching Experience

Introduction to Econometrics - Alzahra University 2023
Introduction to Python Programming - Alzahra University 2022
Linear Algebra - University of Tehran 2022

Teaching Assistantship

BANA2082 - University of Cincinnati 2026
• By Dr Iman Attari
Management of Operations - University of Cincinnati 2025
• By Professor Rao Uday
Operations Planning and Scheduling - University of Cincinnati 2025
• By Professor Rao Uday
Principles of Macroeconomics - University of Wisconsin Milwaukee 2025
• By Professor Mohsen Bahmani-Oskooee
Principles of Macroeconomics - University of Wisconsin Milwaukee 2024
• By Doctor Antu Murshid
Principles of Macroeconomics - University of Wisconsin Milwaukee 2024
• By Professor Rebecca Neumann

Professional Activities

Journal Reviewer 2021 - Present
• Computational Economics - Springer
• Financial Innovation - Springer

Work Experience

R&D and Machine Learning Pipeline Engineer, Iran's National Traffic and Transportation Association – Tehran, Iran 2022 – 2024
• Time series forecasting of short term traffic flow in highways of Tehran metropolitan area
• Vehicle detection and counter system using Deep Neural Networks from traffic camera videos
R&D Expert, Mofid Securities – Tehran, Iran May 2020 – April 2021
• Designing numerical optimization methods for portfolio optimization
• Asset allocation between risky and risk free assets
• Predicting future volatility in return of TSE stocks

Miscellaneous Projects

Parking vehicle counting using drone with Ultralytics yolov8 2023
• leveraging drones and YOLOv8 to big parking vehicle counting
• Recording video with drone
• Labeling dataset
• Training and fine tuning custom YOLO model
Designing LSTM based Forecasting model specified on S&P 500 2021
• Designing a clean pipeline of forecasting
• Designing an automated feature selection methodology

- Designing a Wavelet based denoising process

Honors and Awards

Iran's National Elites Foundation research grant award

4th place amongst 65 in international stock trading / asset management competition