

Ehsan Hoseinzade

Education

- 2019-present **Ph.D. in Computer Science, Data Mining, Simon Fraser University.**
GPA – 4.08/4.33, Supervisor: Dr. Ke Wang
- 2016-2019 **M.Sc. in Computer Science, Decision Science and Knowledge Engineering, University of Tehran.**
GPA: 18.93/20 - Ranked 1st according to GPA
Thesis: Using Deep Learning in Financial Markets Prediction (20/20)
Supervisor: Dr. Saman Haratizadeh
- 2012-2016 **B.Sc. in Computer Science, Shahid Beheshti University.**
GPA – 17.44/20 - Ranked 3rd according to GPA

Research

Publication

Hoseinzade E, Haratizadeh S. "CNNpred: CNN-based Stock Market Prediction Using Several Data Sources", *Expert systems with applications*, [researchgate](#), [Dataset](#).

Submitted or Pre-print

Hoseinzade E, Haratizadeh S, Khoeini A. "U-CNNpred: A Universal CNN-based Predictor for Stock Markets", [researchgate](#).

Khosrobeygi Z, Veisi H, Hoseinzade E. "Persian Optical Character Recognition Using Deep Bidirectional Long Short Term Memory", *IET Image Processing*.

Hoseinzade E, Haratizadeh S. "C-CNNpred: CNN-based Stock Market Prediction Using Clustering of Stocks", *Iranian Financial Engineering Association*, Persian.

Khoeini A, Haratizadeh S, Hoseinzade E. "Representation Extraction and Deep Neural Recommendation for Collaborative Filtering", [researchgate](#).

Experience

Research Assistant

- 2019-present As a member of [Database and Data Mining Lab](#), I have been working on Machine Learning, Deep Learning, and their applications in semantic type detection in tables.
- 2017-2019 As a member of [KDD Lab](#), I worked on Machine Learning, Deep Learning and their applications in financial markets.

Teaching Assistant

- Spring 2022 **Computational Data Science, Undergraduate.**
- Spring 2021 **Data Structure and Algorithms, Undergraduate.**
- Fall 2019 **Design and Analysis of Algorithms, Graduate.**
- Spring 2019 **Mining of Massive Datasets, Graduate.**
- Fall 2018 **Machine Learning, Graduate.**
- Spring 2018 **Mining of Massive Datasets, Graduate.**
- Fall 2017 **Machine Learning, Graduate.**

Projects

Future sales prediction of various items in different shops, *Kaggle (top %15)*.

Prediction of Dow-Jones Stocks Using Genetic Algorithm and Huber Regression, *Outperformed a paper*.

Prediction of stock markets using semi-supervised models and deep learning.

Forecasting Dow-Jones Industrial Average using text mining, *Kaggle*.

Prediction of buying and selling probabilities of stocks in Tehran Stock Exchange, *Tadbir Brokerage*.

Prediction of Iranian presidential election (2017), *1.5M posts of social networks*.

Forecasting return of commodities in an online retailer, *Data Mining Cup*.

Honors and Awards

- 2021 Helmut & Hugo Eppich Family Graduate Scholarship, Canada
- 2019-2020 Graduate Fellowship, Simon Fraser University (twice), Canada
- 2019 Ranked 7th in DataDays competition among 530 teams, Sharif University of Technology, Iran
- 2018 Full scholarship of the Big Data Economics summer school, Tehran Institute for Advanced Studies
- 2016 Ranked 10th in National Graduate Entrance Examination in Computer Science (Decision Science & Knowledge Engineering) among 1184 students, Iran
- 2014 10th place in Asia Regional ICPC (International Collegiate Programming Contest) among 101 qualified teams, Asia Tehran Site

Selected Certificates

- 2019 **Structuring Machine Learning Projects**, deeplearning.ai, [See Certificate](#)
- 2019 **Improving Deep Neural Networks**, deeplearning.ai, [See Certificate](#)
- 2019 **Neural Networks and Deep Learning**, deeplearning.ai, [See Certificate](#)
- 2017 **Machine Learning**, Stanford University, [See Certificate](#)
- 2017 **Neural Network for Machine Learning**, University of Toronto, [See Certificate](#)
- 2017 **Statistical Learning**, Stanford University, **with distinction**, [See Certificate](#)
- 2017 **Deep Learning 101**, IBM, [See Certificate](#)
- 2016 **Data Science Foundations - Level 1**, IBM, [See Certificate](#)

Volunteer

- External Reviewer IEEE Big Data 2019, ICDE 2020, KDD 2020, ICDM 2020, WSDM 2020
- Staff NeurIPS 2019, ICML 2020
- Staff ICPC (International Collegiate Programming Contest) Pacific Northwest Regional Contest

Skills

Programming Languages: Python, Java, C++, R, MATLAB

Machine Learning: Keras, Tensorflow, Pytorch, Sklearn, NLTK, Weka, Pandas