

Ehsan Hoseinzade

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Researchgate

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Education

- 2019-present **Ph.D. in Computer Science, Data Mining, Simon Fraser University.**
Supervisor: Prof. 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
Supervisor: Dr. Saman Haratizadeh
- 2012-2016 **B.Sc. in Computer Science, Shahid Beheshti University.**
GPA – 17.44/20 - Ranked 3rd according to GPA

Research Interests

- Machine Learning
- Deep Learning
- Data Mining
- Natural Language Processing

Experience

Research Assistant

- 2017-2019 As a member of [KDD Lab](#), I have been working on Machine Learning, Deep Learning, Natural Language Processing, Graph Modeling and their applications in financial markets as well as recommender systems.

Teaching Assistant

- Spring 2019 **Mining of Massive Datasets, Graduate**, Instructor: Dr. Saman Haratizadeh.
Fall 2018 **Machine Learning, Graduate**, Instructor: Dr. Saman Haratizadeh.
Spring 2018 **Mining of Massive Datasets, Graduate**, Instructor: Dr. Saman Haratizadeh.
Fall 2017 **Machine Learning, Graduate**, Instructor: Dr. Saman Haratizadeh.
Fall 2017 **Fundamentals of Soft Computing, Graduate**, Instructor: Dr. Hadi Veisi.
Spring 2016 **Fundamentals of Computing Theory, Undergraduate**, Instructor: Dr. Hadi Farahani.
Spring 2016 **Theory of Computation, Undergraduate**, Instructor: Dr. Hadi Farahani.
Fall 2013 **Fundations of Programming, Undergraduate**, Instructor: Dr. Kamyar Izadi.

Publications

- Hoseinzade E, Haratizadeh S. "CNNpred: CNN-based Stock Market Prediction Using Several Data Sources", *Expert systems with applications*, [researchgate](#).
- Khoeini A, Haratizadeh S, Hoseinzade E. "Representation Extraction and Deep Neural Recommendation for Collaborative Filtering", *Information Processing & Management*, submitted.
- Hoseinzade E, Haratizadeh S, Khoeini A. "HT-CNNpred: An Universal CNN-based Predictor of Stock Markets Using Hierarchy Training and Transfer Learning", *to be submitted*, full length paper.
- Hoseinzade E, Haratizadeh S. "C-CNNpred: CNN-based Stock Market Prediction Using Clustering of Stocks", *to be submitted*, Persian.
- Hoseinzade E, Haratizadeh S. "Prediction of Dow-Jones Stocks Using Genetic Algorithm and Regression with Huber Loss Function", *to be submitted*, Persian.

Projects

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

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

- 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 Offered admission to Computer Science M.Sc. program at Shahid Beheshti University without Entrance Examination
- 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 ACM-ICPC (International Collegiate Programming Contest) among 101 qualified teams, Asia Tehran Site

Certificates

- 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](#)
- 2015 Cryptography, University of Maryland, [See Certificate](#)
- 2015 Image and video processing, Duke University, [See Certificate](#)
- 2015 Compiler, Stanford University, [See Certificate](#)
- 2014 Cryptography I, Stanford University, **with distinction**, [See Certificate](#)
- 2014 Automata, Stanford University, **with distinction**, [See Certificate](#)
- 2014 Algorithms: Design and Analysis, Part 1, Stanford University, [See Certificate](#)
- 2014 Introduction to Logic, Stanford University, [See Certificate](#)
- 2014 Programming for Everybody-python, University of Michigan, **with distinction**, [See Certificate](#)

Skills

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

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

Web Technologies: HTML, CSS, PHP, JavaScript

Operating System: Windows, Linux

References

Dr. Saman Haratizadeh, Assistant Professor, Head of Knowledge Discovery and Data Mining Lab, University of Tehran, Iran, Email: haratizadeh@ut.ac.ir

Dr. Hadi Veisi, Assistant Professor, Head of Data and Signal Processing Lab, University of Tehran, Iran, Email: h.veisi@ut.ac.ir

Dr. Morteza Ebrahimi, Assistant Professor, Head of Decision Support Systems Lab, University of Tehran, Iran, Email: mo.ebrahimi@ut.ac.ir