ALI ELAHI

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EDUCATION

Master of Science   Fall 2022 – Spring 2024

University of Illinois at Chicago ↗

— **Computer Science** ↗
Focused in Information Retrieval
— GPA: 4

Bachelor of Science   2017 – 2022

University of Tehran ↗

— **Computer Engineering/Science** ↗
Focused in Data Science
— GPA: 3.5

— **Mechanical Engineering** ↗
— GPA: 3.2

Honors

— Bronze Medal in National Chemistry Olympiad
— Ranked within the Top 0.1% Nationwide University Entrance with 160K Participants
— Member of Iran's National Elites Foundation

COURSEWORK

Quantitative Finance (Currently)	Financial Markets (Currently)
Big Data Mining (A)	Computational Economics (A)
Information Retrieval (A)	Deep Learning & Applications (A)
Internet Engineering (A)	Reinforcement Learning (A)

PUBLICATIONS

Predicting Surface Water Bacteria Levels Using Domain Adaptation ↗   Under Submission

A Comparative Study of Recommendation Algorithms: Online and Offline Evaluations on a Large-scale Recommender System in Iran ↗   2020

FIELDS OF INTERESTS

Finance	Data Mining
Machine Learning	Quant Finance/Econ

SKILLS

	Expert	Proficient	Familiar
General Tools	Word, Excel, PowerPoint, Latex	sheets, pages, Keynotes	
Programming Languages/tools	Python, R, C++	SQL, Java	Docker, JS, kubernetes
Data Science Tools	PyTorch, Pandas, SKlearn, Numpy	TensorFlow, Spark, NLTK, Matpltlib	
Software & Frameworks	Git, Trello, Jupyter, Colab	Jira, MongoDB, PostgreSQL	HTML/CSS, React JS, Node JS

WORK HISTORY AND EXPERIENCES

University of Illinois at Chicago   September 2022 - now

Prof. Samuel Dorevitch ↗ **Prof. Cornelia Caragea** ↗

— Data Scientist: Office Of Naval Research Grant - Semi-Supervised Domain Adaptation in Water Quality Prediction

Yektanet Co. ↗   Summer 2020 - Winter 2021

— Business Analyst: Designing an advertisement bidding system - Clients' profitability analysis
— Data Scientist/Analyst: Development and Maintenance of a Large-Scale Recommendation-System

Treasurer @ Association of Computer Machinary (ACM) Student Chapter @ Uni of Tehran

Head Teaching Assistantship

Dr. Hakimeh Fadaei ↗ **, Assis. prof. Ehsan Khamespanah** ↗

— Artificial Intelligence, Internet Engineering, and Statistics Classes @ Uni of Tehran

NOTABLE ACADEMIC PROJECTS

Finance

— Security Price Time-series Analysis [↗]
Price Prediction Using Sequential ML Models (LSTM) - For SP500, BTC, AAPL

— Buy, Hold, or Sale? [↗]
Reinforcement Learning Model (MDP) for Trading Based on Next Day Price Prediction

Deep Learning

— English to Persian Machine Translation with Transformer - On 1 GB Corpus Using Pytorch [↗]

— Relation Extraction Task - SemEval Dataset Using Bi-LSTM Architecture Using Pytorch [↗]

— Image Captioning Model - Trained on Flicker8k - Convolutional + Bi-LSTM Using Pytorch [↗]

— Image Colorization - Stylization-based Architecture for Fast Deep Exemplar Colorization [↗]

— CCNN: Crowd Counting - via Multi-Column Convolutional Network Using pytorch [↗]

— SegNet: Pixel-Wise Semantic Segmentation [↗]
Deep Convolutional Encoder-Decoder for Robust Pixel-Wise Labelling Using Pytorch

— MLP Neural Network with Numpy on UTK Faces from Scratch! [↗]

Reinforcement Learning

— Markov Decision Process Profit Optimization - On-policy/Off-policy Monte-Carlo, Double Q-learning, Tree Back-up, SARSA and n-Step Expected SARSA [↗]

— Policy Iteration Algorithm for a Profit Maximization Problem [↗]

— Decision Making Using N-armed Bandit [↗]

Internet Engineering

— Development and Deployment of a Food Ordering and Delivery Website [↗]
Frameworks and Technologies: Spring, PostgreSQL, ReactJS, Docker, Kubernetes

REFERENCES

Prof. Cornelia Caragea [↗]   ✉ Mail   Prof. Samuel Dorevitch [↗]   ✉ Mail

Assis. prof. E. Khamespanah [↗]   ✉ Mail   Dr. Hakimeh Fadaei [↗]   ✉ Mail