Zahra **Habibzadeh**

RESEARCH ASSISTANT

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Education

University of Tehran
Tehran, Iran

M.Sc. IN ARTIFICIAL INTELLIGENCE AND ROBOTICS · *2020 - 2023*

- Thesis: Extracting values and attitudes from social network data: A case study assessing users' satisfaction with their partner
- Overall GPA: 4/4

University of Mazandaran
Babolsar, Iran

B.S. IN COMPUTER ENGINEERING · *2012 - 2016*

- Thesis: Designing a new article site using PHP and SQL
- Overall GPA (Last two years): 3.76/4
- 2nd Rank among graduated bachelor students based on overall GPA out of 70 students

Research Interests

Computational Social Science	Behavioral Analysis
Natural Language Processing	Transformers, LLMs
Data Mining	Text Mining, Sentiment Analysis
Deep Learning	Recurrent Neural Networks in Finance

Research Experience

Research Assistant
Tehran, Iran

SOCIAL NETWORKS LAB, UNIVERSITY OF TEHRAN · *2021 - present*

- Working with social network data to derive valuable insights into human behavior regarding social interactions.
- Developing a new approach to evaluate user contentment in their relationship by analyzing Twitter data.
- Comparing different methods for the Influence Maximization Problem in Social Networks in a systematic review. (Link)

Publications

Extracting values and attitudes from social network data
Computational social science

Z.HABIBZADEH, M.ASADPOUR · *2023*

- Preparing to submit

Teaching Experience

Mentor
HooshBuz Summer School

UNIVERSITY OF TEHRAN, TEHRAN, IRAN · *2022-2023*

- Data Analytics, Machine Learning, and Text Mining
- Group collaboration with 7 other mentors to educate 80 students during 14 workshops on Data Analytics, Machine Learning, and Text Mining.

Statistical Inference Teaching Assistant
Dr. Behnam Bahrak

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING, COLLAGE OF ENGINEERING, UNIVERSITY OF TEHRAN, TEHRAN, IRAN · *2022*

- Defining an advanced practical and theoretical assignment.

Machine Learning Teaching Assistant
Dr. Mohammad Reza Abolghasemi

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING, COLLAGE OF ENGINEERING, UNIVERSITY OF TEHRAN, TEHRAN, IRAN · *2022*

- Defining an advanced practical and theoretical assignment for more than 100 students.

Data Analysis Teaching Assistant
Dr. Mohammad Amin Sadeghi

SCHOOL OF ELECTRICAL AND COMPUTER ENGINEERING, COLLAGE OF ENGINEERING, UNIVERSITY OF TEHRAN, TEHRAN, IRAN · *2021-2022*

- Defining 3 advanced projects and 3 quizzes for more than 70 students.

Projects

Big Data and Data Analytics Projects (Link)
- Launching a real-time Big Data system for the analysis of online Persian Twitter data
- Using Apache Spark for Natural Language Processing, Log Mining, Graph Mining, and Stock Market tasks
- Analyzing a real dataset using the R programming language
- Investigating the main reason for the sales decline in a wood industry factory

Social Networks Projects (Link)
- Examining the effect of combining economic and social analysis on the prediction of stock price fluctuations
- An analysis of Telegram channels related to the dollar and its price

Deep Learning & Machine Learning Projects (Link)
- Deep Reinforcement Learning techniques for the Cartpole environment
- Generating music using using Long Short-Term Memory (LSTM) networks
- Classifying images using Convolutional Neural Networks (CNNs)
- Detecting Parkinson disease using signals of speech data with ensemble learning

Bio Inspired Computing Projects (Link)
- Developing L-System Grammar
- Implementing bio-inspired optimization methods to enhance algorithm performance for complex problem-solving

Skills

Theoretical Experience	Machine Learning, Text Mining, Deep Learning, Design of Algorithms, Big Data, Data Structures, and Databases
Programming Languages	Python, R, HTML, CSS, JavaScript, and C++
Libraries and Frameworks	PyTorch, TensorFlow, Keras, NumPy, SciPy, Scikit-learn, Pandas, BeautifulSoup, and NetworkX
Databases, Datastores, and Tools	MongoDB, Apache Cassandra, Elasticsearch, ClickHouse, Neo4j, and SQL Server
Big Data Platforms and Tools	Apache Spark, Apache Superset, Apache Hadoop, Apache Kafka, Apache Hive, Kibana, and DBeaver
Visualization Tools	Matplotlib, Seaborn, Plotly, Gephi, Geoplotlib, and Houdini
CI/CD Tools	Git
Container Platforms	Docker
Other Tools and Skills	LaTeX, MS Office, and Adobe Photoshop

Languages

English	*Fluent*
Persian	*Native*

Academic Courses

Bio Inspired Computing, 19.4/20	*2022*
Advanced Robotics, 18.77/20	*2022*
Social Networks, 18/20	*2021*
Neural Networks and Deep Learning, 18.06/20	*2021*
Massive Data Analysis and Systems (Big Data), 19.5/20	*2021*
Statistical Inference, 17.8/20	*2021*
Machine Learning, 19.3/20	*2020*
Data Analysis, 17.75/20	*2020*