Mo Mehabadi

Fredericton, NB, CA
+1 (506) 897-4211
ms.mehabadi@gmail.com
Website: https://m-mehabadi.github.io/
https://github.com/m-mehabadi
https://www.linkedin.com/in/mehabadi/

Work Experience

1/2023 – 4/2023 **Software Engineer Intern,** Anessa, Fredericton, NB, Canada
- Development, testing and documentation of RESTful API services in a microservice solution.
- Implemented feed forward neural networks for prediction in simulation processes.
- Researched and completed a technical document on the implementation of a Real-time Machine Learning solution.

Skills: Java, Spring, RESTful services & APIs, Machine Learning, Deep Learning, MongoDB, Docker, Jira, Bitbucket, Angular, Node.js

8/2021 – 4/2022 **Machine Learning Engineer**, MCI (Hamrah-e-Aval) R&D Center, Tehran, Iran
- Development on scalable AI platform and deployment of distributed Machine Learning and Deep Learning using Kubernetes, Apache Spark, and Docker.

Skills: PyTorch, Docker, Kubernetes, Apache Spark, Prometheus

1/2017 – 11/2017 **Software Engineer and Full-Stack Developer**, Imen Rayaneh Amirkabir, Co., Tehran, Iran
- Design and development of single-page web app with RESTful APIs using MySQL, Python (Django), JavaScript (Vue.js), HTML, CSS

5/2016 – 12/2016 **Full-Stack and Report Developer**, Kanoon Farhangi Amoozesh, Tehran, Iran
- Development of web app using SQL Server, C# (.NET MVC4), JavaScript (JQuery), HTML, CSS
- Development of reporting tools for BI

Education

2022 – Present **University of New Brunswick**
Ph.D., Computer Science
- Research on smart grids including simulation of power grids with presence of distributed energy resources, Optimization and prediction on smart grids, real-time data analytics cloud solutions.

2018 – 2021 **Sharif University of Technology**, Tehran, Iran.
M.Sc., Artificial Intelligence and Robotics

- Research on improving robustness of deep neural networks in image classification and semantic segmentation.
- **Selected Courses:** Digital Image Processing, Digital Signal Processing, Advanced 3D Computer Vision, Deep Learning, Machine Learning, Machine Learning Theory

2012 – 2017 **Amirkabir University of Technology**, Tehran, Iran.
B.Sc. Engineering, Computer Engineering Minor

- **Selected Courses:** Artificial Intelligence, Web Engineering, Probability and Statistics, Algorithm Design and Data Structure, Advanced Programming

Publications

M. Mehabadi, S. Shehbaz, B.S.P. Addala, K. Kent., "**Pattern-Driven and Stochastic Generation of Energy Time Series via Differentiable Simulation**", Accepted in CASCON 2025.

S. Shehbaz, M. Mehabadi, K. Kent., "**Benchmarking and Evaluation of Time Series Databases for Appliance-Level Energy Consumption Data**", Accepted in CASCON 2025.

B.S.P. Addala, M. Mehabadi, K. Kent., "**DGSim: A Scalable Framework for Simulating Energy Consumption of Household Appliances**", Published in ECMS 2025. Available here.

Skills

Programming	• Python, Java, C#, C/C++, MATLAB, Shell Script • JavaScript (ES5/ES6), HTML/CSS, SASS
Data Science	• PyTorch, JAX, TensorFlow, Keras • scikit-learn, Numpy, Pandas, PIL, OpenCV, Apache Spark, Matplotlib
Backend & Web Development	• Django, Flask, FastAPI, Spring, .NET Core, .NET MVC, Express • Vue.js, Nuxt.js, React.js, Node.js
Database	• PostgreSQL, SQL Server, MySQL • MongoDB, Apache Kafka, Redis
Miscellaneous	• Git, Linux, Jupyter Notebook, vscode, AI tools.

Languages

- **Persian:** Native
- **English:** Full professional proficiency (IELTS **7.5**: R **7.5**, L **7.5**, W **7.0**, S **7.0**)