

# SAJAD DADGAR

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## Skills

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- **Programming Languages:** Python, Java, SQL, JS, C/C++ , R, Matlab
- **Libraries:** PyTorch, TensorFlow, Keras, Numpy, Pandas, Scikit-Learn, NLTK, OpenCV
- **AI & ML Skills:** Machine Learning, Transfer Learning, LLMs, LangChain, NLP, Computer Vision, MLOps
- **Databases:** PostgreSQL, MySQL, MongoDB, Oracle
- **Web Technologies:** Django, Spring, Node.js, HTML, CSS, JavaScript, jQuery, React
- **Cloud Technologies:** Amazon AWS
- **Environments and Tools:** Git, Docker, CI/CD, Streamlit, Postman, MacOS, Linux (Ubuntu), Windows
- **Soft Skills:** Problem-Solving, Team Work, Communication, Leadership, Project Management, Self-Learning

## Education

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- University of Calgary**, M.Sc. in Computer Science 2023 – 2025
- **GPA:** 3.85 / 4.0
  - **Thesis:** Developed a novel policy mining approach from incomplete access logs, using MaxSAT to extract DTE policies for improved explainability and reliability, and GNNs to enhance efficiency and scalability.
- Amir Kabir University of Technology**, B.Sc. in Computer Science 2016 - 2021
- **GPA:** 3.75/4.0
  - **Thesis:** Identify misinformation about Covid-19 on social media.

## Work Experience

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- ML/AI Researcher**, Cybersecurity Research lab in UofC, Canada Sep 2023 – Sep 2025
- Developed a policy mining approach using MaxSAT to extract interpretable DTE policies from incomplete logs, enhancing explainability and reliability.
  - Leveraged GNNs to accelerate policy extraction and improve computational efficiency. Also, evaluated performance through experiments on benchmark datasets, assessing runtime, generalization, and scalability.
- Data Scientist**, Digikala Mar 2022 – Dec 2022
- Implementing machine learning models, analyzing large-scale customer and product data, and delivering insights that enhanced personalization and product development.
- Data Science Research Assistant**, Remote, University of South Australia Jul 2021 – Mar 2022
- Designed and evaluated machine learning models to analyze large datasets and extract actionable insights. Published two papers as first-author demonstrating innovative applications of data-driven approaches.
- Software Engineer Intern**, Rahnema Company, Iran Jul 2019 – Sep 2019
- Three months of learning and developing a mobile application using Spring, React Native, and etc.

## Teaching Experience

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- Data Structures, Algorithms, and Their Analysis** - UofC Aug 2025 - Nov 2025
- Explorations in Artificial Intelligence and Machine Learning** - UofC May 2025 - Jul 2025
- Introduction to Software Engineering** - UofC Sep 2024 - May 2025
- Techniques for Numerical Computation** - UofC Jan 2024 - May 2024
- Web-Based Systems** - UofC Aug 2023 - May 2024
- Artificial Intelligence** - AUT Feb 2021 - Jul 2021

## Projects

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- Engagehub: AI-Enhanced Public Engagement System** 🔄 Mar 2025
- Achieved 4th place in the Urban Systems hackathon by developing an AI-powered survey platform with voice input and LLM-based chatbot for real-time feedback analysis using NLP, speech-to-text, and web scraping.
- Foreign Affairs Data Visualization** 🔄 Dec 2023
- Developed a data visualization project for a CANIS Data Visualization and Foreign Interference hackathon, focusing on extracting and visualizing data related to Chinese media influence on the Canadian government.
- MFCC Speech Recognition** 🔄 Jun 2020
- Implemented a speech recognition system for the "Deep Learning" course project using MFCC and CNNs. The project involved developing various models and processing audio data to enhance recognition accuracy.
- Image Reconstruction via Hopfield Networks** 🔄 May 2020
- Implemented Hopfield Networks from scratch to effectively reconstruct incomplete images by iteratively converging to stored patterns, demonstrating robust associative memory capabilities.
- Call of Typing – Website for Typing Competition** 🔄 Jun 2020
- Developed a typing competition website enabling users to enhance typing and listening skills through text and audio exercises, with features like profile customization, group contests, and a dynamic ranking system.
- Cando- Mobile Application for Auction** 🔄 Sep 2019
- Developed a mobile app for auction with Spring and React Native, featuring live auction bidding, user account management, and real-time notifications for an engaging user experience.
- Data Analyzing of Digikala's Dataset** (Amirkabir Data Mining Cup 2018) 🔄 Jul 2019
- Analyzed Digikala data to uncover trends and support strategies for growth.
- Desktop Education Portal** 🔄 Mar 2018
- Developed a desktop application for students, enabling them to enroll in courses and access various functionalities similar to university portals, streamlining their academic activities and administrative tasks.

## Publications

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- Dadgar, S., & Prof. Fong, P. (2025). **Mining Attributed DTE Policies**. (Submitted to EuroS&P conference)
- Dadgar, S., & Dr. Neshat, M. (2025). **Technical report of the machine learning methods application for wave energy prediction**. (Accepted at SDEWES conference)
- Dadgar, S., & Dr. Neshat, M. (2022). **A Novel Hybrid Multi-Modal Deep Learning for Detecting Hashtag Incongruity on Social Media**. (Published by Sensors Journal)
- Dadgar, S., & Dr. Neshat, M. (2022). **Comparative Hybrid Deep Convolutional Learning Framework with Transfer Learning for Diagnosis of Lung Cancer**. (Accepted at SoCPaR conference, Published by Springer)
- Dadgar, S., & Prof. Ghatee, M. (2021). **Checkovid: A COVID-19 Misinformation Detection System on Twitter Using Network and Content Mining Perspective**

## Awards and Achievements

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- International Graduate Tuition Award (IGTA)** Jul 2023
- International Graduate Recruitment Award (IGRA)** Jun 2023

## Certificates

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| <b>Develop Generative AI Applications</b> - IBM                    | <b>Generative AI with Large Language Models</b> -   |
| <b>Machine Learning in Production</b> - DeepLearning.AI            | DeepLearning.AI                                     |
| <b>Data Engineering Professional Certificate</b> - DeepLearning.AI | <b>Machine Learning</b> - Stanford Online           |
| Four-course series: Intro to Data Engineering, Source Systems      | <b>Deep Learning A-Z™</b> - Udemy                   |
| & Data Ingestion, Data Storage & Queries, Data Modeling &          | <b>Machine Learning A-Z™ (Data Science)</b> - Udemy |
| Transformation   |   |

## Volunteering

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- Vice President of Finance** - *Computer Science Graduate Society (CSGS)* May 2024 - May 2025
- Head of Informatics and Contests of Students' Scientific Association** - AUT Mar 2018 - Mar 2019