

# Mohammad Hadi Rouhani

Machine Learning Engineer & Data Scientist

☎ (+1) 587 566 5117

✉ rouhani@ualberta.ca

📄 hadi2525.github.io/

🌐 hrohani

📍 hadi2525



## HIGHLIGHTS



- Machine Learning Engineer and Data Scientist with four years of professional experience in design, development, and deployment of machine learning pipelines.
- Highly proficient in leveraging data and uncovering stories from data through visualization
- Worked with teams of business owners, project managers, and product owners to deliver high functional ML products to stakeholders
- Expert in developing modular and reproducible software product with more than 3 years of working with Python, R, and other programming languages
- Led Alberta startups and businesses to leverage their product with machine learning and AI solutions

## EDUCATION

- M.Sc. in Computer Science** Sep 2020 — May 2022  
🏛️ University of Alberta  
Edmonton-Canada
- M.Sc. in Electrical Engineering** Sep 2016 — Sep 2019  
🏛️ University of Alberta  
Edmonton-Canada
- B.Sc. (with Honors - 2nd top) in Electrical Engineering** Sep 2009 — Sep 2013  
🏛️ Shiraz University  
Shiraz-Iran

## WORK EXPERIENCE


-  **AltaML** Sep 2022 - present  
**GovLab AI - Associate Machine Learning Developer** [Full-time]
  - Worked in an agile environment with weekly sprint planning approach
  - Collaborated to build a machine learning solution for the Government of Alberta
  - Trained the data scientist residents with Git and how to use GitHub
  - Accommodated clients' need to automate permit document screening and authentication
  - Used various machine learning frameworks, including computer vision, text recognition, natural language processing
  - Established an ethical AI, building a responsible AI
  - Led a team of developers for AltaML Internal Hackathon; Emotion Mining, A Mental-Health Project to support telephone service staff
  - Demonstrated numerous initiatives and helped enhance some of the organizational coding standards
  - Built a full-stack software product that is meant to automate document screening
  - Helped save millions of dollars every year by reducing permit document processing times
-  **Alberta Machine Intelligence Institute (Amii)**
  - Machine Learning Curriculum Manager [AI4Good Lab]** [Full-time] Apr 2022 - Aug 2022
    - Worked as one core member of the executive team develop the syllabus for the lab and communicate with lecturers
    - Led a team of 30 TAs, mentors, and presentors to assist students with their ideation, project
    - Helped organize a 7-week intensive workshop with more than 100 participants, teaching assistants, lecturers, guest speakers, industry mentors, etc.
    - Trained talented students/participants to become the future ML startup founders
    - Organized an internal Hackathon that tailored students' abilities with data science principles
  - Machine Learning Facilitator** [Contract Part-time] Jul 2022 - Nov 2022
    - Supported and supervised Amii's Education team on delivering workshop on AI ethics and governance.
    - Worked seamlessly with the team to deliver high quality workshops for Amii's clients and partners

-  **Freelance Data Scientist** Jan 2022 - present
  - Helped companies in oil & gas industry, global climate change, healthcare on their problems and provide machine learning solutions
  - Consulted with a firm on economic options to handle employees and address burnouts suggesting a machine learning solution
  - Invited at PyYYC, PyData Calgary, and EdmontonPy meetup as a speaker [YouTube] May 2022**List of selected projects**
  - **Continuous Integration ML Deployment (ML-Ops) [Python Code]** Feb 2022
  - **Pharmaceutical Drug review - [Python Code]** Jan 2022
  - **Sizing of Charging Stations Co-located with Solar Panel and Battery Storage** Oct 2021
  - **Rooftop solar panel sizing detection using deep learning - (APIC) 2021 Hackathon** Jun 2021
  - **Simulator for queueing systems [Python Code]** Mar 2021
  - **Economic assessment of electric vehicle integration into Alberta transportation system (ATCO) Oct 2021**
-  **University of Alberta** Sep 2020 - May 2022


**Python Teaching Assistant [Full-time]** Sep 2020 - Dec 2020

  - Collaborated with a team of TAs to help 2nd-year students with their learning on Python.
  - Provided solutions to the assignments and marked over 200 Python coding assignments.
  - A continuous work integration in Git.


**Computer Science Researcher & Software Developer** Jan 2021 - April 2022

  - Conducted research in innovative topics (toward my MSc thesis on Robust Sizing of Charging Stations in Alberta Transportation System)
  - Built a software product from scratch that analyzes the traffic flow at a certain location to provide sizing suggestions for charging station
-  **University of Stuttgart, Stuttgart, Germany** Dec 2019 - Jul 2020

**Data Scientist**

  - Led a team of data science MSc students on economic assessment of German electricity market to adopt electric vehicles
  - Participated in MSc thesis defense as an examiner and supervised a number of MSc students
-  **Surplec HV, Spruce Grove** Aug 2019 - Nov 2019

**Test Tech Specialist**

  - Helped the company gain approximately \$ 3000.00 in revenue by addressing company's challenges with testing products and quality control of inventories.
-  **University of Alberta** Sep 2016 - Aug 2019

**Research Assistant [Full-time]**

  - Conducted literature review and make reports for supervisor
  - Held weekly meetings to provide progress report on the research
  - Collected results on my findings and write essays and paper drafts for publications
  - Orally presented a part of my research outcome at a conference at Stanford University
  - Published the results of my work at high prestigious journal publications

## Skills

<b>Coding / MLOps</b>	C/C++, Python (scikit-learn, pytorch, tensorflow, pandas, spark, etc.), Git, Linux, Cloud computing platforms (Google Cloud, AWS, Azure), SQL
<b>Web App Dev.</b>	JavaScript, CSS, ReactJS
<b>Quantitative</b>	Algorithms and Optimization, Advanced Math & Probability, Data structures, Machine Learning, Economic & Statistics
<b>Communication</b>	English (fluent), Persian (fluent-native), German (intermediate)