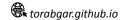
Melika Torabgar

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PROFESSIONAL SUMMARY

I'm an experienced **Data Scientist** with over **4 years** in machine learning, data analysis, and visualization. I excel at transforming **complex data** into actionable insights and creating **visuals** that clearly communicate findings to stakeholders. With strong skills in data modeling and advanced statistical techniques, I'm passionate about using data to drive business growth and deliver innovative solutions.

SKILLS

Technical skills

- Programming: Python, SQL, HTML, CSS
- Database/Datawarehouse: Snowflake, PostgreSQL, IBM SPSS Statistics
- ML: Scikit-learn, Numpy, Pandas, Scipy, TensorFlow, Matplotlib, Seaborn, plotly, OpenCV, OpenAI, LangChain, LLM, NLP, Spark, Hadoop
- Developer Tools: Microsoft Azure, Git, PowerBI, Streamlit, Docker, Flask, Linux, Jira, Confluence, Postman

Soft skills

Communication & Teamwork: Effectively convey project updates to non-technical stakeholders through high-quality presentations.

WORK EXPERIENCE

Data Scientist (Contract - Part time)

June 2024 - Present

Wetrag & University of Alberta

- Implement different ML models to predict individuals who have dementia
- Technology: Python, Scikit-learn, Git, MySQL, Pandas, Numpy, Matplotlib, Plotly

Machine Learning Engineer (Permanent - Full time) Origin Electrical LTD.

May 2023 - April 2024

Electricity Bill Prediction

- Implemented ETL pipelines of electrical data from meters for electricity bill prediction model training using Snowflake
- Leveraged Azure Data Lake and Azure AutoML to optimize data management, automate model training and boost project efficiency
- Adopted Facebook Prophet time series ML models to predict electricity usage and bills for the upcoming months
- Deployed bill prediction model for production on the Digital Ocean platform
- Improved Prophet model performance by 30% using feature engineering
- Collaborated with front-end developers to design and illustrate the model performances.
- Technology: Python, Azure, Scikitlearn, Facebook Prophet, Snowflake, Docker, Flask, Git, Digital Ocean, MySQL, Jira, Confluence

Associate Machine Learning Developer (Contract - Full time) AltaML Inc.

Sep 2022 – April 2023

Government Building application permit

- Collected and labelled data from different databases for the City of Edmonton building application permit
- Trained models on City of Edmonton permit images using Azure's object detection and Custom Vision, achieving 78% accuracy.
- Optimized the Streamlit dashboard, enhancing government efficiency and saving over \$5 million annually.
- Presented technical training on Exploratory Data Analysis(EDA) to over 30+ associates, and staff at the company
- Technology: Python, Azure, Custom Vision, OpenCV, Streamlit, Git, Pandas, Scikit-learn, Numpy, Matplotlib, Seaborn

Solar Forecasting

- Processed time-series data from the NASA Power Project
- Developed various Machine Learning models such as XGBoost, Random Forest, and LSTM for solar forecasting
- Applied LSTM model with the highest performance of %82 accuracy and lowered the error to 4% for time-series prediction
- Stored data and used AutoML on Azure Cloud Services to find the best model for this prediction
- Developed the User Journey, Persona, and ML Canvas for Business Strategies
- Technology: Python, Azure, Git, Pandas, Scikit-learn, Tensorflow, Numpy, Matplotlib, Plotly

Data Analyst Feb 2020 – July 2022

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- Collected, annotated, and cleaned data from people with dementia
- Achieved important features for dementia prediction using Random Forest with 91% F1-score
- Identified significantly different behaviours using Chi-squared statistical analysis
- Constructed four different input variables with important features to get the highest recall (93%)
- Technology: Python, Pandas, Scikit-learn, Numpy, Matplotlib, Seaborn

SELECTED PROJECT

Al Receptionist April 2024

- Created an AI to answer phone calls and assist customers in scheduling appointments using Bland AI
- Integrated the Al agent call with Google Calendar to check for existing reservations and offer available time slots
- Utilized the prompted engineering for concise reply to the client
- Updated/Automated Google Calendar with customers' desired booking date and time, including their information in the calendar event
- Technology: Generative AI, LangChain, GPT 3.5 Turbo, GPT 4, Bland AI

EDUCATION

MSc, Rehabilitation Science

Jan 2020 - July 2022

Department of Rehabilitation Medicine, University of Alberta, Edmonton, AB

Thesis: Using **Machine Learning** to identify common engagement-related behaviours demonstrated by older adults with **dementia** While Playing Video Games

BSc, Biomedical Engineering

Sep 2015 - Sep 2019

Department of Engineering, Azad University of Tehran, Iran

Thesis: Femur Simulation with the 3D slicer software

CERTIFICATES

- OBIO Health Science Technology Training for Software & Data Professionals OBIO
- Unleash the Power of Large Language Models Using LangChain Educative
- Azure AI fundamentals (AI-900) Microsoft
- Machine Learning Technician Certificate Alberta Machine Intelligence Institute (Amii)
- Machine Learning Foundation 1 & 2 Alberta Machine Intelligence Institute (Amii)
- Python and Machine Learning Udemy
- Ethical Conduct for Research Involving Humans Course on Research Ethics (TCPS2:CORE)

HONORS & AWARDS

Amii Machine Learning Technician Scholarship, Alberta
 Rehabilitation Medicine Graduate Student Scholarship, University of Alberta
 Covid-19 Graduate Student Support Award, University of Alberta
 Alberta Graduate Excellence Scholarship (AGES), University of Alberta
 Sep 2020

PUBLICATIONS & CONFERENCES

- **Torabgar, M.**, Figeys, M., Esmail,S., Stroulia, E, Rios Rincon, A. The Role of Gaming Behaviours in Identifying Dementia Among Older Adults: An Exploratory Study. *JMIR Serious Games Publication*. (Under Review).
- Torabgar, M., Esmail, S., Stroulia, E, Rios Rincon, A. Using Machine Learning to Distinguish Dementia in Older Adults Based on Engagement-Related Behaviours While Playing Video Games. *Reverse EXPO*, Al4 Society, February 18, 2022. Edmonton, Alberta.
- **Torabgar, M.**, Rios Rincon, A. Using **artificial intelligence** to assess engagement. *Oral presentation at the World Federation of Occupational Therapists (WFOT) conference*. March 27- 30, 2022. Paris, France.
- Torabgar, M., Rios Rincon, A. Do computers know whether older adults are engaged while playing mobile games? Twitter
 presentation at AGE-WELL EPIC Conference 2021 (#AWepic2021). June 10, 2021.