# Moja Afroughi

Data Scientist, MSc

## CONTACT

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Toronto, ON

## Summary

Moja is an experienced Data Scientist and Python Developer specialized in Data Mining, BI and Business Experimentation, Intelligent Marketing, AI and advanced Machine Learning.

Currently at Flashfood Inc, he oversees the full-scope execution of advanced analytics with the objective of creating inferences, predictions, and recommendations for improvements to business processes, and the KPI/metrics to monitor those improvements. His other focus is developing software tools for ETL, designing/modifying database schema, data models and pipelines, as well as automating common analysis workflows through serverless platforms.

## Areas of Expertise

- Advanced OOP with Python and complex query development with SQL;
- Data mining, data wrangling, web scraping, and extracting insights from large, messy datasets;
- Business experimentation, A/B testing, and BI analytics;
- Supervised and unsupervised ML (predictive model development, regression and classification analysis), deep learning and recommendation systems leveraging ML libraries such as Scipy, Statsmodels, Scikit-Learn, Karas, TensorFlow, and XGBoost;
- Big data analytics and distributed computing using Spark and MLib;
- Interactive visualization, dynamic dashboard design and embed reports using Plotly, D3.js, and Tableau;
- Structured and unstructured database management using PostgreSQL, MongoDB, and Amazon Redshift, ORM and schema design using SQLAlchemy, as well as data integration, ETL automation, and pipeline designe;
- Cloud and serverless computing using AWS EC2, Lambda, etc;
- Advanced Git workflow;
- Project management, team work and leadership, storytelling and case study.

## Education

**MSc, Machine Learning** 2018
University of Alberta, CA

**BSc, Mechanical Engineering** 2015
Sharif University of Technology, IR

## Work Experience

**Data Scientist** Since 2019
Flashfood Inc, Toronto, CA
- Data mining and extracting meaningful insights from large databases and APIs;
- A/B testing and BI analytics for KPI and customer behavior analysis;
- Machine learning algorithm for descriptive, predictive, and perspective analysis;
- ETL, database management/integration, and data pipeline automation;
- Serverless computing and report automation;
- Interactive visualization and embed reports.

**Machine Learning Engineer** 2018 - 2019
University of Toronto, CA
- Advanced machine learning algorithm for predictive analysis on air quality distribution;
- Advanced predictive model development for air pollution time-series analysis;
- Data mining and image processing for hourly air pollution concentration estimation.

Data Scientist                                                          2018 - 2019
City of Edmonton, CA
- o Machine learning application in corporate energy consumption prediction and optimization;
- o Data mining and model development for sustainable energy utilization;
- o Advanced predictive models for GHG emission rate analysis.

Machine Learning R&D Engineer                                          2016 - 2018
Future Energy Systems, Edmonton. CA
- o Advanced model development in energy conversion systems;
- o Advanced machine learning algorithm in signal and image processing;
- o Data mining and image classification analysis.

## Technical Skills

Programming: Python, SQL, JS

Data Base: MongoDB, PostgreSQL, Redshift, SQLAlchemy

Big Data: Spark, MLib

Cloud and Serverless Computing: AWS EC2, Lambda, S3, SES, Glue

ML Libraries: Numpy, Pandas, Scipy, Statsmodels, Scikit-Learn, Karas, TensorFlow, XGBoost

Visualization Modules: Plotly, Seaborn, D3.js

BI Tools: Tableau, Power BI, Mode

Version Control: Git

## Selected Courses/Certificates

Applied Data Science                                                         2019
Harvard University

Machine Learning                                                            2018
Stanford University

## Memberships

Kaggle                                                                  Since 2018
Google

## Boards and Committees

Vice President External                                                  2016 - 2017
GSA, University Alberta, CA

Graduate Representative                                                  2016 - 2017
Council of Faculty of Engineering, University of Alberta, CA

## Professional Recognitions

Best Oral and Paper Presentation Awards                                       2018
World Academy of Science, Engineering and Technology

Mary Louise Imrie Graduate Student Award                                      2017
University of Alberta, CA

Shell Canada Enhanced Learning Award                                          2017
Shell Canada