

# Moja Afroughi

Data Scientist, MSc

## CONTACT

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## About

I am an experienced Data Scientist and Python Developer (4.3 years) specialized in Data Mining, BI and Business Experimentation, Intelligent Marketing, AI and advanced Machine Learning.

Currently at Flashfood Inc, I oversee 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.

I'm a fan of emerging business and technologies, and follow psychological analytics and machine learning models on user data. I believe in the open-source world, and the significance of user privacy and customer satisfaction.

### 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 MLlib;
- 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 design;
- Cloud and serverless computing using AWS EC2, Lambda, etc;
- Advanced Git workflow;
- Project management, team work and leadership, storytelling and case study.

## Work

### Data Scientist

Flashfood Inc, Toronto, CA

Since 2019

- Data mining and extracting meaningful insights from large datasets and APIs;
- A/B testing and BI analytics for KPI and customer behavior analysis;
- Machine learning algorithm for descriptive, predictive, and perspective analysis;
- Machine learning for recommendation engines and user segmentation;
- ETL, database management/integration, and data pipeline design/automation;
- Serverless and distributed computing, report automation, and software development;
- Interactive visualization, storytelling, defining data team roadmap and promoting data-driven strategies.

### Machine Learning Engineer

University of Toronto, CA

Fall 2018

- Advanced machine learning algorithm for spatio-temporal analysis on air quality distribution;
- Model development for air pollution time-series analysis;
- Data mining and image processing for estimating hourly air pollution concentration.

### Data Scientist

City of Edmonton, CA

Summer 2018

- Machine learning application in corporate energy consumption prediction and optimization;
- Data mining and model development for sustainable energy utilization;
- Advanced predictive models for GHG emission rate analysis.

### Machine Learning R&D Engineer

Future Energy Systems, Edmonton, CA

2016 - 2018

- Advanced model development in energy conversion systems;
- Advanced machine learning algorithm in signal and image processing;
- Data mining and image processing/classification analysis.

## Education

### MSc, Machine Learning

University of Alberta, CA

2018

### BSc, Mechanical Engineering

Shantl University of Technology, IR

2015

## Technical Skills

- Programming ----- Python, SQL, JS
- Data Base ----- MongoDB, PostgreSQL, Amazon Redshift, SQLAlchemy
- Big Data ----- Spark, PySpark, MLlib
- 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, Google Analytics
- Version Control ----- Git

## Courses/Certificates

### Applied Data Science

Harvard University

2019

### Machine Learning

Stanford University

2018

## Boards and Committees

### Councillor

Council of the Faculty of Engineering, University of Alberta, CA

2016 - 2017

## Professional Recognitions

### Best Oral and Paper Presentation Awards

World Academy of Science, Engineering and Technology

2018

### Mary Louise Imrie Award

University of Alberta, CA

2017

### Shell Canada Enhanced Learning Award

Shell Canada

2017