

# Moja Afroughi

Data Scientist, MSc

## CONTACT

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## Summary

Moja is an experienced Data Scientist and Python Developer specialized in Data Mining, BI and Business Experimentation, Statistical Modeling, 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

- o Advanced OOP with Python and complex query development with SQL;
- o Data mining, data wrangling, web scraping, and extracting insights from large, messy datasets;
- o Business experimentation, A/B testing, and BI analytics;
- o 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;
- o Big data analytics and distributed computing using Spark and MLlib;
- o Interactive visualization, dynamic dashboard design and embed reports using Plotly, D3.js, and Tableau;
- o 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;
- o Cloud and serverless computing using AWS EC2 and Lambda.

## 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, CA

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

Machine Learning Engineer 2018 - 2019  
University of Toronto, CA

- o Advanced machine learning algorithm for predictive analysis;
- o Advanced predictive model development for time-series analysis and image processing.

Data Scientist 2018 - 2019  
City of Edmonton, CA

- o Machine learning application in energy consumption prediction;
- o Data analytics for sustainable energy utilization;
- o Advanced predictive models for GHG emissions analysis.

Machine Learning R&D Engineer Future Energy Systems, University of Alberta, CA	2016 - 2018
<ul style="list-style-type: none"> <li>o Advanced model development in energy conversion systems;</li> <li>o Advanced machine learning algorithm in signal and image processing;</li> <li>o Data mining and image classification analysis.</li> </ul>	

Data Scientist Air Quality Control Company, Tehran, IR	2014 - 2016
<ul style="list-style-type: none"> <li>o Advanced statistical analysis on air quality distribution (time-series analysis);</li> <li>o Predictive model development for hourly air pollution concentration estimation;</li> <li>o Data mining and signal processing of data acquisition systems.</li> </ul>	

## Computer Skills

Programming: Python, SQL, JavaScript

Data Base: MongoDB, PostgreSQL, Redshift, SQLAlchemy

Big Data: Spark, 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

Version Control: Git

Word Processing, Spreadsheet, Presentation, and Project Management: Word, LaTeX, Excel, PowerPoints, Jira

## Selected Courses/Certificates

Applied Data Science Harvard University	2019
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Machine Learning Stanford University	2018
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## Memberships

Kaggle Google	Since 2018
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## Boards and Committees

Vice President External GSA, University Alberta, CA	2016 - 2017
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Graduate Representative Council of Faculty of Engineering, University of Alberta, CA	2016 - 2017
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## Professional Recognitions

Best Oral and Paper Presentation Awards World Academy of Science, Engineering and Technology	2018
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Mary Louise Imrie Graduate Student Award University of Alberta, CA	2017
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Shell Canada Enhanced Learning Award Shell Canada	2017
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