# Moja Afroughi

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## **EDUCATION**

#### Master of Science

University of Alberta | Mechanical Engineering | 2018

## Bachelor of Science

Sharif University of Technology | Mechanical Engineering | 2015

## SKILLS

## **PROGRAMMING**

Advanced OOP ◆ Agile Software Development ◆ Complex Query Development ◆ Front-end Web Design

Python | C++ | MATLAB | SQL | JS HTML | CSS | Git | Bash | Jira | Jupyter

## MACHINE LEARNING

Regression, Classification and Clustering • A/B Testing • Deep Learning (RNNs, CNNs, GANs) • NLP • Recommendation Engines • Ensemble Learning • Image Processing

TensorFlow | Keras | Scikit-Learn | Pandas Scipy | StatsModels | NLTK | Gensim

## **BUSINESS INTELLIGENCE**

Data-driven Business Strategy Development • KPI and Real-time Monitoring • Marketing and Operation Insights • Interactive Visualization

Tableau | PowerBI | Google Analytics Mode | Plotly | D3.js | Matplotlib | Seaborn

## DATA MINING/ENGINEERING

Feature Engineering from Structured/ Unstructured Data • ETL • SQL/NoSQL Database Management • ORM and Distributed Data Pipeline Design

PostgreSQL | MongoDB | Redshift | Spark

## CLOUD COMPUTING

Serverless Computing • Report and Ad-hoc Analysis Automation • ML Data Pipelines • Batch and Real-time Data Streaming

AWS EC2 | Lambda | Sagemaker | Glue

# RESOURCES

Linkedin: https://www.linkedin.com/in/afroughi/ Website: https://datainsider.info/ Github: https://github.com/moojad

## **EXPERIENCE**

## Data Scientist

Flashfood Inc | 2019 (Feb - Sep)

Leading data science and engineering team and in close relationship with other departments, developed multiple ML algorithms and data pipelines to improve business strategy, product development, marketing efficiency, and user journey within the Flashfood App.

- Data mining and feature engineering from large structured/unstructured datasets and SAAS APIs;
- ML algorithms for predictive analysis and clustering;
- Recommendation engines and user segmentation;
- A/B testing, BI analytics and KPI development;
- NLP, sentiment analysis and chatbots;
- ETL, data pipeline design and automation, database management and integration;
- Serverless and distributed computing, automation of ad-hoc analysis, and custom software development in AWS;
- Interactive visualization and dynamic dashboard design.

## Machine Learning Engineer

University of Toronto | 2018 (Sep - Dec)

- Convolutional and recurrent neural networks (RNNs, CNNs) for spatial and temporal modeling of air quality;
- Multivariate time-series modeling of air pollution concentration across the city;
- Deep neural net modeling of stochastic behavior of nano-particle pollutants and their spatial distribution in proximity of the source.

### Data Scientist

City of Edmonton | 2018 (May – Aug)

- Machine learning application in prediction and optimization of corporate energy consumption models such as OLS, GLMs, and Neural Networks;
- Data mining and model development for sustainable energy utilization;
- Ensemble modeling (Bagging and Boosting) for prediction of GHG emissions form stationary and mobile sources with stochastic behavior.

## Machine Learning R&D Assistant

University of Alberta | 2016 - 2018

- Deep neural networks application in optimization of renewable energy systems, data acquisition models and signal processing;
- Ensemble learning of recurrent neural networks (RNNs) for time-series analysis and noise removal from sensor signals;
- Convolutional neural networks (CNNs), image processing, segmentation and classification for enhancement and feature extraction from nano-particle images.

# **CERTIFICATES**

#### Stanford University

Natural Language Processing with Deep Learning | 2019 Machine Learning | 2018

## Harvard University

Applied Data Science | 2018