

Ashkan Lotfipoor

DATA SCIENTIST

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Education

PhD in Civil Engineering

2019 - Present

HERIOT-WATT UNIVERSITY

Edinburgh, Currie EH14 4AS

- Developing a Hybrid System of Data-centric Approaches for Energy Demand Analytics.

MSc in Engineering Geology

2015 - 2018

UNIVERSITY OF TEHRAN

Tehran, Enghelab Sq.

- Evaluating interaction of underground excavations and groundwater resources based on experiences gained from long water conveyance tunnelling projects in Iran.

BSc in Geology

2011 - 2015

UNIVERSITY OF TEHRAN

Tehran, Enghelab Sq.

- A four-year degree where I've studied courses such as Optical Mineralogy, Environmental Geology, Structural Geology, Palaeontology, Tectonics, Stratigraphy, Petroleum Geology, Hydrogeology, Rock Mechanics and Engineering Geology.

Experience

PhD Researcher

Oct 2019 - Present

HERIOT-WATT UNIVERSITY

Edinburgh, Currie EH14 4AS

- Developing a Hybrid System of Data-centric Approaches for Energy Demand Analytics.

Data Analyst

Jun 2017 - Sep 2019

SAMSUNG FIELD MARKETING (SFM)

Tehran, Kian Tower

- Collecting data about competitors and mixed analysing of marketing, sales and distribution strategies.
- Optimising data collection procedures and generated reports on a weekly and monthly basis.
- Developing and reviewing business KPI's and analysing data.
- Develop and implement databases, data collection systems.
- Develop new interactive dashboards in Power BI and Excel.
- Preparing reports based on country-wide surveys (Price Monitoring, Customer Behaviour, and Products Availability)

Translator

Mar 2013 - Apr 2017

AVAJEH STUDIO

Sardash St, Tehran

- Provided oral and written translation services Iran National Television.
- Assisted in proofreading translated materials.

Publications

JOURNAL ARTICLES

Introduction of an empirical classification system for evaluating tunneling impact on the discharge of springs (TIS) in the surrounding areas

Jafar Hassanpour, Ashkan Lotfipoor, Massoud Morsali

Bulletin of Engineering Geology and the Environment (2021). 2021

CONFERENCE PROCEEDINGS

Short-term Forecasting of Residential Electricity Demand Using CNN-LSTM

Ashkan Lotfipoor; Sandhya Patidar; David Jenkins

2nd IBPSA-Scotland uSIM Conference, 2020, Edinburgh

Evaluating the Risk of Springs Drawdown in Kerman Water Conveyance Tunnel

Ashkan Lotfipoor; Jafar Hassanpour; Akbar Cheshomi; Masoud Morsali

36th National Geosciences Symposium, 2018, Tehran

Determination of the effect of tunnel boring activities on Sarab-Garm spring drawdown in Bazi-Deraz water conveyance tunnel

Ashkan Lotfipoor; Jafar Hassanpour; Akbar Cheshomi; Masoud Morsali

35th National Geosciences Symposium, 2017, Tehran

Development of a Program for Probabilistic Analysis of Water inflow into Tunnels

Ashkan Lotfipoor; Jafar Hassanpour; Akbar Cheshomi; Masoud Morsali

12th Iranian and 3rd Regional Tunneling Conference, 2017, Tehran

Presentation

EGIS Symposium 2021 - Innovations That Inspires

ASHKAN LOTFIPOOR

- Machine Learning Based System for Missing Data Imputation and Energy Demand Forecasting

Edinburgh, Scotland

May 6th, 2021

IIE Seminar

ASHKAN LOTFIPOOR

- Application of Machine Learning Approaches for Energy Demand Analytics

Edinburgh, Scotland

April 21th, 2021

2nd IBPSA-Scotland uSIM Conference

ASHKAN LOTFIPOOR

- Short-term Forecasting of Residential Electricity Demand Using CNN-LSTM

Edinburgh, Scotland

November 12th, 2020

Iranian Tunnels association monthly speeches

ASHKAN LOTFIPOOR, DR JAFAR HASSANPOUR

- Introducing an empirical methodology for evaluation of tunnelling impacts on water resources

Tehran, Iran

August 15th, 2018

12th Iranian and 3rd Regional Tunnelling Conference

ASHKAN LOTFIPOOR

- Development of a Program for Probabilistic Analysis of Water inflow into Tunnels

Tehran, Iran

February 22th, 2017

Iranian Tunnels association monthly speeches

ASHKAN LOTFIPOOR, DR JAFAR HASSANPOUR

- Probabilistic analysis of water inflow into tunnels

Tehran, Iran

January 25th, 2017

Selected courses

- 2020 **Coursera**, Deep Learning Specialisation
- 2020 **LinkedIn Learning**, Advance Your Skills in Deep Learning and Neural Networks
- 2019 **Google**, Machine Learning Crash Course (with TensorFlow APIs)
- 2019 **LinkedIn Learning**, Master Python for Data Science
- 2019 **Microsoft**, Analyzing and Visualizing Data with Power BI
- 2019 **Microsoft**, Querying Data with Transact-SQL

Skills

- Machine Learning** Deep learning including CNNs, RNNs, Machine learning including SVM, KNN, decision trees
- Programming** Tensorflow, Python, Unix/BASH, git, SQL, HTML, LaTeX
- Business Analytic** Excel (VBA), Power BI (DAX – MDX)

Honours

INTERNATIONAL

- 2019 **James Watt Scholarship**, Won a James Watt Scholarship from Heriot-Watt University

Scotland

DOMESTIC

- 2014 **Forth**, Nationwide MSc program entrance examination for Engineering Geology
- 2015 **First**, Among fellow MSc students, Department of Geological Engineering, University of Tehran
- 2011 **Top %0.9**, Ranked 4156th among more than 465,000 participants in 2011 nationwide B.Sc. program entrance examination

Iran

Iran

Iran

Referees

- Sandhya Patidar** Institute for Infrastructure and Environment, Heriot-Watt University | s.patidar@hw.ac.uk
- David P. Jenkins** Institute for Infrastructure and Environment, Heriot-Watt University | d.p.jenkins@hw.ac.uk
- Jafar Hassanpour** Department of Engineering Geology, University of Tehran | hassanpour@ut.ac.ir