# FARZAM KAMGAR

Data Analyst with 2+ years of experience executing data-driven solutions to increase efficiency, accuracy, and utility of internal data processing. Experienced at building machine learning models, using predictive data modeling, and analyzing data mining algorithms to deliver insights and implement action-oriented solutions to complex business problems.



2019 2018

# MSc in Applied Statistics and Datamining

University of St Andrews

**♀** St Andrews

· The course emphasis was upon practical analysis of big data and the extraction of answers from real-life data by applying programming languages including R, Python, SAS, and SQL

2018 2015

### BSc Politics, Philosophy and Economics

Goldsmiths, University of London - First Class Honours

London

· This technical degree programme helped me to gain a solid grounding in quantitative methods such as econometrics and develop analytical and statistical techniques to formulate an evidence-based analysis

2015 2013

#### A-Level

City of Oxford College

Oxford

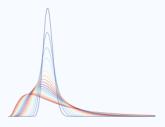
· A-levels: Mathematics (B), Economics (B), Languages (A\*)

# RELEVANT PROJECTS AND SKILLS

2019 2018

# University of St Andrews

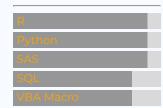
- · Developed an automatic credit card approval model using machine learning techniques in Python to predict whether individual's application for a credit card will be accepted
- · Build Random Forest and regression trees models in R programming to predict location, date and time that New York tax drivers earn the most value of fares and tips
- Extracted financial news headlines for Tesla and Facebook stocks using NLP and sentiment analysis in Python to make informed guesses on how certain stocks will perform
- · Processed a large real-estate dataset in near real time by running machine learning models utilising Amazon Kinesis Streams and Spark on Amazon EMR to develop shopping personalisation, ad targeting and update buyers and sellers with the estimated values
- · Deployed Amazon SageMaker using popular XGBoost ML algorithm to predict whether a customer will enrol for certificate of despite offered by a bank
- · Modelled correlated data using Generalised Estimating Equations (GEEs) in SAS to measure the hydration of the outer layer skin of a sample of patients before and repeatedly after the application of a pharmaceutical product
- · Used Natural Language Processing (NLP) toolkits such as NLTK, Gensim, NumPy and Scikitlearn to create a machine learning classifier predicting whether a tweet came from President Trump or Prime Minister Trudeau
- · Examined the relationship between maximum heart rates during exercises and possibility of heart diseases by applying multiple logistic regressions in R programming
- · Performed Market Basket Analysis (MBA) on transaction data leveraging Tableau and Power BI to discover and understand what items customers purchase together
- · Conducted a k-means cluster analysis to investigate and visualise salary potential of university degrees in R programming
- · Launched an Amazon EMR cluster using a HiveQL script to analyse sample log data stored in Amazon S3 bucket
- · Predicted the impact of climate change on birds populations in Scottish Highland using spatial data and generalised logistic regression with elastic net regularisation (glmnet) in R programming



#### Contact

- **∠** fk46@st-andrews.ac.uk
- in Farzam-Kamgar
- github.com/fkamg001
- **y** Farzam\_Kamgar
- **J** (+44) 7423 226364

# Language Skills



# Visualization

Tableau	
shiny	
ggplot	
Plotly	
Highcharts	
matplotlib	
Power BI	

# Distributed Computing

Spark SQL
Spark ML
AWS
EC2
S3
EMR

# Open Source

- 1 Projects available @ github.com/fkamg001
- **L** Updated 2020-02-03

# RELEVANT WORK EXPERIENCE

# Present 2019

## **Data Anayst - Health Economics**

Adelphi Values | PROVE

- Manchester
- · Utilised Excel VBA Macro to develop multi-indication budget impact model to evaluate the financial impact of adding new pharmaceutical products into the market
- · Used Natural language processing techniques in Python to analyse medical literature reviews and link relevant papers together for researchers
- · Employed deep convolutional neural networks (CNNs) to train algorithms capable of detecting skin cancer or melanoma using images of skin lesions
- · Applied K-Neighbours Classifiers to predict the presence/absence of heart diseases providing insights for healthcare providers to adapt their diagnosis and treatment

# 2017 2016

# Finance Internship

NatWest Business Bank

Oxford

- · Developed an end-to-end machine leaning model leveraging MLlib in pySpark to determine if loan applicants are capable of repaying their loans
- · Build machine learning algorithms by training Extreme Gradient Descent Boosted Decision Tree models (XGBoost) in Python to predict interest rate assigned to clients' loans
- · Utilised Tableau to analyse lending across geographies with interactive dashboards
- · Analysed clickstream data by implementing Random Forest and Ensemble techniques to identify potential clients visiting the website and display customised contents which cater to their needs

# FURTHER WORK EXPERIENCE

2019 2018

#### Room Attendant

The Old Course Hotel, Golf Resort & Spa

Ost. Andrews

· Worked up to 20 hours per week as part of the best housekeeping team in the UK at the five star Old Course Hotel

# 2018 2017

# Co-director of student-led department

Political Economy Research Centre (PERC)

Condon

- · Organised events on the subject of blockchain, cryptocurrency and their potential to disrupt monetary system
- · Contributed to write a report of 'Festival for New Economic Thinking' in Edinburgh
- · Organised seven events and two conferences over the past two years with 500 attendees

# ADDITIONAL QUALIFICATIONS

# 2019 2018

#### **DataCamp**

datacamp.com

- · Natural Language Processing Fundamentals in Python
- · Deep Learning in Python
- · Machine Learning with Tree-Based Models in R
- · Nonlinear Modeling in R with GAMs
- · Introduction to SOL

# 2019 2018

### LinkedIn

### learning.linkedin.com

- · Applied Machine Learning: Foundations
- · SAS Essential Training: 1 Descriptive Analysis for Healthcare Research
- · SAS Essential Training: 2 Regression Analysis for Healthcare Research

# More info

- Adelphi Values | PROVE
- A Natwest Banking
- Due to nature of the industries, no codes can be shared.

## References

- NatWest Bank

## More info

- conferences
- Event on blockchain
- **Publication**

## References

- J PERC | Dr Will Davies
- The Old Course Hotel

# Certificates

- NLP Fundamentals
- Deep Learning
- Applied ML
- **@** ML in Tree-Based Models
- **Q** GAMs in R
- ▲ Intro to SQL
- ♣ SAS for Healthcare Research

Built with **@** pagedown

- Source code: github.com/fkamg001/cv
- **L** Updated 2020-02-03