DANIAL MIRZA

Proven expertise in data science, artificial intelligence/machine learning, data visualization and advanced statistical techniques.

Confident communicator with strong presentation skills and the ability to create productive relationships and engage with colleagues at all levels.

Holds himself to the highest possible standards and thrives on meeting challenging goals, solving complex problems and tackling all his assignments with passion and enthusiasm.

EDUCATION

Master of Business Analytics
MIT Sloan School of Management | Operations Research Center
Cambridge, MA
Aug 2019 – Present
Key modules: Machine Learning, Optimization Methods, Analytics Edge, and Econometric Data Science

BSc (Hons) Statistics and Economics
First Class Honours
University College London (UCL)
London, UK
Sep 2016 – June 2019

KEY SKILLS

Methods: Data Science, Machine Learning, Statistics, Econometrics, Operations Research, Optimization, Forecasting, Predictive and Prescriptive Analytics, Experimental Design

Technical Skills: R, Python, SQL, Hadoop, Spark, ETL, Julia, Git, LaTeX, AWS Cloud (S3, EC2)

Management Skills: Presenting, Negotiation, Project Management, Communication

ACHIEVEMENTS

- Won 'Most Innovative Hack' at UCL Porticode 3.0 and KCL HackKings 5.0 beating over 80 competing teams (Fall 2018)
- Elected to be a member of the MBAn Leadership Council
- Director of UCL Statistics Society
- Treasurer of UCL Life Ethics
- Co-Founder, girlco.de – a social enterprise providing training and support to women in tech from under-represented and low-income communities

EXPERIENCE

Volunteer Research Associate — Cambridge, MA
MIT COVID-19 Policy Alliance — Mar 2020 – Present
- Built models using advanced statistical techniques to analyze COVID-19 infection and mortality rates to help hospitals and testing facilities optimize supply of services
- Took total responsibility for designing, deploying and maintaining the AWS data pipeline utilizing S3 and EC2 and data wrangling in R, Python
- Reporting daily to local and national agencies across multiple states providing a crucial resource to help tackle the coronavirus crisis

Data Scientist (Capstone Project) — Cambridge, MA
United States Postal Service — Feb 2020 – Present
- Devised and implemented advanced feature extraction and classification models leveraging R and Python to help detect and seize synthetic opioids entering the US via the postal service
- Analyzed disparate data sets (Hadoop, Hive, Spark) including IP tracking logs, change of address networks and FBI crime and overdose statistics to develop machine learning models to flag suspicious packages for inspection
- Engaged directly with key stakeholders with the US Postal Inspection Service, the Office of the Inspector General and the Department of Homeland Security

Analytics Lab Team Member — Cambridge, MA
MIT Sloan School of Management — Sep 2019 – Dec 2019
- Constructed models in R, Python to predict patient length of stay in hospital, outperforming estimations from physicians by an average of 2 days per patient
- Identified key drivers of length of stay in order to minimize unnecessary lengthy admissions, reducing overheads and streamlining billing processes
- Built robust prescriptive models using Julia to optimize bed allocation and prevent underutilization (empty beds) and overutilization (schedule clashes)

Data Analyst — London, UK
Avora (Business Intelligence start up) — June 2018 – Aug 2018
- Implemented advanced machine learning and anomaly detection methods for data analysis in Python/Pandas
- Applied Bayesian statistics to develop algorithms to automatically find root cause behind a change in performance
- Created multiple dashboards demonstrating KPI metrics such as revenue, conversi rates to meet client requirements and drive product sales

Project Manager — London, UK
Card Factory — Aug 2017 – Oct 2017
- Took complete end-to-end responsibility for managing a major nationwide EPOS upgrade used as a case study resulting in new business wins valued in excess of £1M
- Delivered project to extremely challenging timescales upgrading 500 stores in 8 weeks and receiving outstanding client feedback

Director, UCL Statistics Society
- Ran a number of events including hosting an academic speaker series and organizing a charity soccer tournament, produced and taught a series of programming workshops in R and Python

Treasurer, UCL Life Ethics
- Organized panel discussions and debates on topics including climate change and artificial intelligence in law enforcement with over 100 attendees

Co-Founder, girlco.de
- Social enterprise focused on providing training and support to women in tech from underrepresented and low-income communities
- Directing strategy and operations including managing volunteers, recruiting mentors and securing funding; leading content creation, designing and developing core 10-week training curriculum

Projects
- Proposing a personalised education solution; using Optimal Trees to prescribe individualised education plans to high school students with learning disabilities aiming to improve future attainment and prevent dropout (2019)
- Undergraduate Thesis: Unsupervised Deep Learning for Anomaly Detection in Network Data (2019)

Interests
- Spent 3 months travelling in Asia including a 4-week internship in Shanghai.
- Learnt basic conversational Mandarin, gained PADI Open Water scuba diving license and trekked to the summit of Mt. Kinabalu
- Other interests: Social impact and community service, compulsive gift giver, accomplished (fantasy) basketball player