Yihui Fan

Data Scientist | Business Analytics & Customer Behaviours

Postgraduate training in both machine learning and social science, together with work experience in data science and management consulting equipped me with a unique skill set for delivering data-driven business insights.

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databentobox.com 🌐

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WORK EXPERIENCE

Senior Data Scientist
Decision Technology

10/2014 – Present   *London*

Consulting company specialising in understanding and predicting customer behaviours with experimental psychology, cognitive science and statistics

Achievements/Tasks

- Build multivariate time series models (ARIMA and neural network based) from big data sets to predict sales and other key metrics for business scenario planning.
- Devise and maintain data visualisation services (e.g. interactive R Shiny Dashboards) to enable KPI monitoring and data-driven decision making.
- Design, execute and analyse experiments to test hypotheses, drive product development and answer key business questions.
- Navigate, process and analyse (un)structured data from various sources to understand customer behaviours and identify trends and opportunities.
- Lead and mentor junior team members and manage multiple projects for different clients simultaneously and effectively.
- Experienced in translating data to actionable insights and recommendations and communicating results to (non)technical stakeholders across different functions.

EDUCATION

MSc Advanced Computing Technologies (Machine Learning)
Birkbeck, University of London

09/2016 – 09/2018   *Distinction*

Courses

- Big Data Analytics using R
- Parallel Computing and Distributed Systems
- Data Security
- Machine Learning
- Advanced Database Management
- Data Mining and Warehousing

MSc Sociology
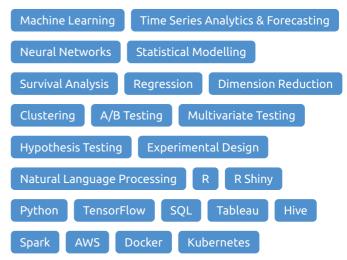University of Oxford

09/2013 – 09/2014   *Distinction*

Courses

- Statistics
- Social Network Analysis
- Experimental Design
- Quantitative Method and Survey Research

BA Linguistics and Sociology
University of Manchester

09/2011 – 09/2013   *First*

SKILLS

Machine Learning   Time Series Analytics & Forecasting

Neural Networks   Statistical Modelling

Survival Analysis   Regression   Dimension Reduction

Clustering   A/B Testing   Multivariate Testing

Hypothesis Testing   Experimental Design

Natural Language Processing   R   R Shiny

Python   TensorFlow   SQL   Tableau   Hive

Spark   AWS   Docker   Kubernetes

PROJECTS

Data Science blog: databentobox.com (10/2016 – Present) ⧉

- databentobox.com is a blog where I showcase my personal data science projects and share thoughts on statistics and programming.
- Blog articles are frequently re-posted by R-bloggers and KDnuggets and have gained traffic in the data science community.
- Specifically, the recent project Simulating Coronavirus Outbreak with Origin-Destination Matrix and SEIR Model attracted 20k views.

MSc Machine Learning Project: Tackling Toxic Comments Using Convolution and Recurrent Neural Networks (06/2018 – 09/2018)

- Going beyond standard sentiment analysis, the goal of this project is to build an automated tool to identify online toxic comments.
- Neural network based classification models (bidirectional GRU-CNN) with pre-trained word embedding were built.
- The final model achieved state-of-the-art classification results and the MSc project was awarded distinction.

MSc Sociology Thesis: Gender Equity and Women's Fertility Intention in European Countries (06/2014 – 09/2014)

- This thesis provides an empirical test of gendered fertility theory by examining whether low gender equity at home lowers women's fertility intentions in 31 European countries.
- Using a series of multilevel logistic regressions, together with the data from the second and the fifth round of European Social Survey, the MSc thesis generated unique insights and was awarded distinction.

LANGUAGES

English
Native or Bilingual Proficiency

Mandarin Chinese
Native or Bilingual Proficiency