Harry Firth

Address: AVAILABLE ON REQUEST
Telephone: AVAILABLE ON REQUEST
Email: AVAILABLE ON REQUEST
LinkedIn: https://www.linkedin.com/in/harryafirth/

Experience

Data Scientist – September 2017 to present
UCAS

Professional development: A team set up to improve the data science standards and approaches in the Analysis and Insights business unit.

- Supporting the transition from SAS to Python within the business unit. Creation of Jupyter notebooks and an internal package as resources.
- Researching and documenting best practises including object-orientated programming, packaging, and code testing. Use of a SharePoint site to host created resources.
- Working in an Agile scrum team. Use of Jira for sprint planning.

DCS (Direct Contact Service): An algorithm matching unplaced applicants on A-level results day to course vacancies.

- Given responsibility to lead and run the DCS service in 2018. Successfully exceeded revenue target with positive feedback from universities which took part.
- Communicating directly with internal and external clients regarding orders, ad hoc queries, and requests
- Working with and updating the existing SAS codebase

Undergraduate mailings, PAD (Potential Applicant Database), and events: The data operations behind much of UCAS' marketing.

- Key driver behind automation of UCAS' integrated mailings system, including the idea and implementation of using VBA to improve account managers' submissions of mailings requests
- Part of team running the data side of the mailings system, including working closely with internal clients
- Experimentation with more data-driven marketing through the 'Intelligent Targeting' trial. This included applying machine learning algorithms and implementing the models into the existing operational mailings code.

Secondments: As part of my recent role, I have been drafted in at short notice to other teams in the business unit to carry out the following tasks.

- End of Cycle reporting: Author of the published 2018 offer-making report. Contributed statistical models (logistic regression and mixed effects models) for a second published report documenting the highly controversial topic of unconditional offers. Working directly with the executive level.
- Analysing opt-in rates: Using machine learning models in Python and SAS to determine factors (including GDPR) affecting applicant marketing opt-ins. Included natural language processing of personal statements.
- Data consultancy: Creation of an automated PowerPoint slide deck to visualise customer data

Data Scientist Intern – September 2016 to August 2017
UCAS

PAD

- Responsible for data cleaning on behalf of UCAS' event scanning services
- Trusted to individually process and send personal data of consenting event attendees to relevant universities and companies
- Development of region propensity scoring system for pre-applicants, used to segment audiences for mailings campaigns

DCS

- Evaluation of the existing matching algorithm
- Automated report generation guiding universities with their orders

Education

MSci (Hons) 1st, Physics – September 2012 to July 2016
School of Physics and Astronomy, University of Nottingham

- Dissertation title: Simulating Dark Matter Direct Detection Experiments. Implemented theoretical models and Monte Carlo techniques in MATLAB, using maximum likelihood analysis to simulate dark matter events
- Modules on scientific computing, image processing, communication skills, and mathematics
- Training in LaTeX

A-Levels – September 2010 to July 2012
Malmesbury School, Wiltshire
Physics – A
Mathematics – A
English Language – A

GCSEs – September 2005 to July 2010
Malmesbury School, Wiltshire
GCSEs: 9, including A grades in English and Mathematics.
GCSE-equivalent IT qualification: Distinction

Certifications and courses

May 2018: Machine Learning MOOC, by Stanford University (Coursera) – 97.3%
July 2017: SAS Certified Advanced Programmer
May 2017: SAS Certified Base Programmer

Other skills

- Version control using Git and Bitbucket
- Aptitude in Microsoft Office. Knowledge of VBA, pivot tables, and formulas for Excel.
- Understanding of SQL syntax through heavy use of the SQL procedure in SAS
- Full clean driving license