William Grimes

+44 77940 70622
williamgrimes@gmx.com
http://williamgrimes.xyz/

Summary

Data Scientist, with two years experience delivering commercial data science projects working with the *World Economic Forum*, *Netherlands' Transportation Ministry*, and the *London Fire Brigade*. Hold a **PhD in Bioinformatics**, and a **MSc in Computer Science**, with over eight years programming experience. Dedicated to applying machine learning to solve problems with social impact, and particularly interested in *imaging*, *geospatial data*, and *natural language processing*.

Professional Experience

Data Science for Social Good (DSSG)

Data Scientist **Jun 2017 – present**

DSSG Europe 2017 member and DSSG Europe 2018 technical mentor.
➔ Mentored a team in scoping and delivering a pipeline for the Netherlands Rijkswaterstaat transportation ministry to predict the likelihood of road traffic accidents along Dutch highways. Deployed a PostgreSQL database, aided with data ETL and advised on feature engineering and model selection.
➔ Developed an open-source fishing risk tool combining vessel tracking data with satellite imagery, using a random forest to score vessels according to likelihood of illegal fishing behaviours. Project code is available here: `https://github.com/DSSG2017/wef_oceans`

ASI Data Science / London Fire Brigade

Data Science Consultant **Jan 2017 – Apr 2017**

Fellowship programme in commercial data science for researchers with strong analytic background.
➔ Completed intensive 8 week training in machine learning, databases, and statistics, as well as business skills including: communication, negotiation, project management, and commercial awareness.
➔ In house consultant with the London Fire Brigade, implementing topic modelling methods to classify corpus of 37,000 fire incident reports. In the process revealed previously unknown incident types, and visualised results. Project code: `https://github.com/williamgrimes/london_fire_brigade`

Laboratory for Molecular Cell Biology (LMCB)

PhD Student **Sep 2013 – Nov 2016**

Joint scholarship at LMCB and A*STAR Bioinformatics Institute, Singapore.
➔ Applied machine learning techniques and segmented endothelial cell phenotypes in high-throughput microscopy assays. Analysed over 5TB of data with a detection accuracy of 82%.

National Institute of Informatics (国立情報学研究所)

International Internship Programme **Jun 2013 – Sep 2016**

➔ Developed Java-based annotation software which assisted in classifying developmental phenotypes in μCT images of mutant mice

Education

University College London

PhD Bioinformatics **Sep 2013 – Nov 2016**

➔ Thesis: *Image processing and analysis methods in quantitative endothelial cell biology*

University College London

MSc Computer Science **Sep 2012 – Sep 2013**

➔ Awarded Aardvark Scholarship 2012

Durham University

BSc Natural Sciences – Physics and Geophysics **Sep 2009 – Sep 2012**

Skills / Keywords

Programming: Python, R, Java, Matlab, SQL, Solidity
Machine Learning: regression, decision trees, ensembles, SVM, neural networks, deep learning
Libraries: NumPy, pandas, SciPy, scikit-learn, scikit-image, OpenCV, Keras, theano, tensorflow
Visualisation: matplotlib, bokeh, plotly, ggplot, Tableau
Scripting: Bash and utils (sed, awk, grep), Python, Ruby
Databases: MySQL, PostgreSQL, MS SQL Server
Front-end: Javascript, HTML, CSS, Semantic UI, Jekyll
Misc: Amazon Web Services, Azure, Docker, Git, Jupyter Notebooks, LaTeX, UNIX