JOSEPH MCPARLAND

Big Data Engineer

ABOUT ME

As a teenager, I intended to be an accountant. My parents both worked in Banking and Finance, it was a natural interest and aspiration. It wasn't until my final year at university, where a module in 'Artificial Intelligence' highlighted the power of data and triggered a rethink. Why be an accountant when one-day data will enable the automation of this role?

The affect data is having on industry, fascinates me. Regardless of the sector, data has the ability to redefine an organisation – because its power can be harnessed in so many different problem-specific ways. For example, the effect technologies like IBM Watson, a supercomputer that combines artificial intelligence and sophisticated analytical software, is having on personal healthcare is extraordinary.

In my personal life, I am very much into health and fitness. I play football recreationally, and go to the gym regularly, these activities enable me to release stress and relax.

I am passionate about charity work, I give blood regularly and since 2012 I have been involved with a local charity called BCYS, where I assist sick, elderly and vulnerable adults.

CONTACT US

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kubrick
GROWING DATA EXPERTS

OVERVIEW

I graduated in 2017 from the University of Bristol with a 2.1 in Mathematics. In my final year, I chose mostly applied units, such as Cryptography, Artificial Intelligence and Modern Mathematical Biology as they were heavily influenced by real world application. All three units were focused on different aspects of data, for example, the Artificial Intelligence unit introduced some crucial machine learning concepts such as Bayesian Modelling and Clustering, while Cryptography highlighted the importance and types of data security. This array of units enabled me to enhance my technical skills using programmes such as Matlab and Python, while also improving my analytical abilities, highlighting how to transform a practical problem into a technical one.

WORK

DATA ENGINEER - KUBRICK GROUP - LONDON
September 2017 - Current
At Kubrick Group I gained knowledge and real world experience in professional skills, a wide yet in depth array of modern technical and analytic skills. We studied the agile software development lifecycles and gained detailed knowledge of platforms and infrastructure.
I specialised in Data Engineering which involved learning and developing advanced skills in Python, Spark, Hadoop, NoSQL and SQL as well as advanced Excel - these lead me to work towards accreditation as a Cloudera Hadoop CCA Developer.

As a junior data consultant I applied my skills on real client projects including:
- Seasonality correlation to sales for a large retail client.
- Feature analysis for a large financial services client providing HR with churn rate modelling against different employee profiles.

The projects were developed in agile teams using Git and Kanban boards following agile processes in the presence of an agile coach. Delivery of the projects used virtual environments and Docker. The professional skills I have acquired and matured were invaluable in these projects.

KPMG
July 2013
My time was split between Marketing and Risk practices.

I shadowed management at client meetings and internal staff briefing sessions. While in marketing, I researched and collated client information for upcoming events using KPMG CRM system. In the risk department, I undertook a project which focused on refining and developing tools to help a large UK retail bank better manage risk. My role was to gather and consolidate data on new products the bank had launched to enable the team to identify trends.

HUTCHINSON LILY INVESTMENTS
July 2012
I spent a brief period at Hutchinson Lilley Investments where I shadowed Investment strategist and partner Robert Hutchison. I gained a brief insight into the world of fund management, while experiencing the investment process and getting an idea of the knowledge required to make successful investment decisions.

EDUCATION

BSC MATHEMATICS, 2.1, UNIVERSITY OF BRISTOL
September 2014 - June 2017

NOTABLE MODULES:

Cryptography – 2.1
The syllabus exposed me to symmetric and asymmetric cryptographic security models, proofs, and encryption schemes such as RSA and ElGamal.

Artificial Intelligence – 1st
This unit gave me an overview of the different approaches to Machine Learning, I particularly enjoyed getting to grips with Bayesian Modelling.

Modern Mathematical Biology – 1st
Professionals in the biomedical sector are increasingly using technology that is reliant on sophisticated mathematics. Examples include, blood flow through arteries, drug design and immunology. I thoroughly enjoyed learning how to apply some mathematical concepts to some fundamental biological problems, for example, learning how linear and nonlinear stability analysis can be used to study the dynamics of complex systems.

KEY SKILLS

Python Libraries:
Pandas, Numpy, SK Learn, NLTK, PyMongo and Plotly
Cloudera Hadoop version 5.4:
HDFS, Yarn, Sqoop, Flume, Avro, Parquet, Impala, Hive and Hue
NoSQL:
MongoDB, Neo4J
SQL:
SSIS, Lavastorm, Advanced SQL
Apache Spark:
RDD, DataFrames, SparkSQL, PySpark with some exposure to and understanding of Scala
Source Control and IDE:
Git, SourceTree and Git Extensions, PyCharm
Other Skills:
Datalku, Linux CentOS 6, SSH, Putty, Agile