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in andyalexanderuk
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programming

Python, R
Javascript, SQL & Java
pandas, sklearn

introduction

I am someone who is motivated by using technology and advanced analytics to improve how decisions are made, and how this drives value. I have a strong hands-on background in applying these approaches, most recently within a data science team for a leading investment bank, and prior to that as the analytics technology and data science CIO for a leading commodities trading house.

Having crossed between commercial and technology roles I appreciate the motivation and tensions that inevitably exist. Throughout my career I have remained a 'hands on' leader / practitioner - recognising the importance of being able to 'lead from the front', as well as develop and implement longer term, and more strategic change.

I bring a unique blend of experience and skills covering hands on analytic roles, through technology strategy, full stack development, IT architecture and CIO responsibilities. This enables me to as easily take the lead in a machine learning development project, as work a set of strategic options with C level executives or lead a development team.

education

2003–08	**BSc** Mathematics and Computer Science First class honours (1:1)	The Open University (part time)
1994–97	**BSc** Economics & Accounting Second class honours (first division – 2:1)	The University of Bristol

experience

2007–17	**BP Plc - trading technology roles**	London, UK

I have held a number of technology positions within BP, most recently CIO for analytics and data science; and before that head of technology strategy and head of technology innovation

Illustrative achievements:

- Implementation of Cloudera CDH based Hadoop stack, design of stream based market data ingestion framework using Kafka.
- Managing a team of >80 people with global locations, including specialist Data Science, optimisation, and quant development teams.
- Delivery of multiple data science project across trading, and corporate functions including:
  - Vessel destination and cargo prediction.
  - Impact of weather on vessel ETA.
  - Wind turbine misalignement modelling.
- Creation of trading innovation function, and delivery of multiple short cycle prototypes covering topics from geospatial analytics, through twitter mining, to relationship and social interaction modelling.
- Creating an SoA architecture, strategy and subsequently overseeing the design and delivery of the technology implementation including designing the prototype for a Mobile Gateway.

- Insourcing of a delivery organisation, resulting in material (>20%) savings and productivity improvements.

2005–07   **BP Plc - European Gas and Power Analytics**   London, UK

Working in a hybrid commercial analytics / market risk role, supporting the trading business across all areas of risk management & analytics.

Specific responsibilities of this role were:

- Design and implementation of a market risk system (which remained in operation for >10 years), including risk attribution, reporting and 'what-if' tooling.
- Day to day analytic tasks to generate trading insight, support market calls, or understand risk.
- Production of daily VaR numbers, documentation of drivers and presentation to traders and business unit management.
- Acting as subject matter expert to several strategic IT initiatives.
- Working as the liaison between the risk function and quantitative analysis teams.

interests

professional: data analysis (including Kaggle / MooC), machine learning, data visualisation, big data analytics technologies, streamed data analytics, application of machine learning to trading, containerisation, micro-service design using python

personal: furniture making, Arduino hacking, running, cooking, spending time with my family (wife, daughter and dog)