

MICHAEL CUTLER

Data Scientist – Big Data Specialist

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A passionate innovator with a wealth of experience in bringing new technology to bear on complex business challenges. Strong communication skills and able to present abstract concepts in an accessible way to all organisational levels.

CORE EXPERTISE

DATA-DRIVEN STRATEGY

Skilled in using data, analysis and a flare for storytelling to influence the decision making process at all levels of the organisation towards strategies that deliver value.

FEATURISATION & MODELLING

Collaborate with domain experts and apply their knowledge on data featurisation & machine learning model development delivering more relevant results and conclusions quickly.

ANALYSIS & ALGORITHMS

Discover patterns, formulate and test hypotheses, translate results into strategies which drive growth resulting in increased revenues and customer satisfaction.

COMMUNICATION & VISUALISATION

Experienced in presenting in an accessible way to executive-level stakeholders and colleagues alike to gain their support for data-driven initiatives and strategies.

IMPLEMENTATION & INTEGRATION

Able to leverage a background in software engineering to take prototype machine learning models through to production implementations, delivering new products and services.

EXPERIENCE

CHIEF DATA SCIENTIST

JAN 2015 - NOV 2015

Early-stage Travel Startup (London)

Responsible for setting and implementing a scalable data strategy, building and training the team, and leading the way towards a data-driven product. Leveraged open-source technologies proven to support explosive growth of web-scale companies.

- Implemented realtime web/mobile data-collection & third-party APIs
- Integrated existing data sources into a single Data Warehouse
- Onboarded, trained and coached analysts and data engineers
- Rolled out reporting leveraging Chartio and a bespoke dashboard
- Predictive modelling, forecasting, outlier detection
- Worked with the product team to launch data-driven services

ACHIEVEMENTS

- Delivered £1,000,000+ uplift in revenue for UK ecommerce companies through machine learning & dynamic personalisation.

- Utilised behavioural targeting techniques, clustering and classification algorithms to deliver a 250% increase in performance for Email marketing campaigns.

- Guest speaker at various Data Science and Big Data conferences, invited to talk at University of Oxford about realtime machine learning.

SKILLS

DATA SCIENCE & BIG DATA

Apache Hadoop, Mahout, Spark (Streaming & MLLib), Storm, Map/Reduce, Hive, Pig

R, Scikit-learn (Python), Oryx, Weka

Kafka, Cassandra, HBase, Neo4J, Mesos, SQL

VISUALISATION & REPORTING

Tableau, QlikView, Chartio, Gephi, Processing

D3.js, HTML/CSS/JS, MindMapping, Excel

SOFTWARE ENGINEERING

Scala, Java, Akka, Netty, Play!, JBoss, Spring

C & C++ (Linux), Objective C, C# & .NET

AWS, Heroku, Rackspace, Docker, Git, Ansible

LANGUAGES

English (native)

German (Basic)

Mandarin Chinese (Beginner)

EXPERIENCE

DATA SCIENTIST, CTO, COFOUNDER

2012 - 2015

TUMRA – Big Data Science (London)

Cofounded TUMRA to bring the latest 'Big Data Science' algorithms and technologies to the market in a Software-as-a-Service (SaaS) offering including professional services for bespoke integration and projects.

- Architected, built and supported a realtime event processing platform on Amazon AWS which applies machine learning algorithms across 100's of millions of 'user interaction events' each week.
- Generated an uplift in ecommerce revenue leveraging realtime machine learning to personalise the user experience of shoppers as they used the website.
- Developed an algorithm to identify 'cliques' of web & social media users in a proof-of-concept for a FTSE100 company.

SENIOR RESEARCH ENGINEER

2006 - 2012

British Sky Broadcasting Plc (London)

Responsible for discovering and innovating Sky's next generation of products and services 3 to 5 years before they are brought to market. Formed partnerships with academic institutions and conducted collaborative research. Presented results to CXO-level management.

- Built one of the UK's first Hadoop/HBase/Mahout clusters
- Applied machine learning models to Terabytes of TV viewing data
- Developed patentable IP, mentored and coached interns, utilised as an expert advisor by Sky's legal counsel.

SOFTWARE ENGINEER

2001 - 2006

British Sky Broadcasting Plc (London)

Widely respected within Sky's software engineering teams for 'thinking outside the box' and architecting innovative solutions to large scale challenges involving millions of Sky TV boxes and the supporting infrastructure.

- Deeply involved in the 'Sky Interactive' connected TV boxes, and the detailed software design of the next-generation 'Darwin' platform.
- Developed an end-to-end encryption system used for Online Banking through connected TV boxes.
- Embedded OpenTV development of connected applications including the Sky Microbrowser and backend systems.

EDUCATION

COMPUTATIONAL PHYSICS

1998 - 2001

Heriot-Watt University, Edinburgh

CLIENT PROJECTS

DATA SCIENTIST, SPOTIFY

Delivered an increase in Spotify Premium subscriptions through data science driven remarketing campaigns.

- Realtime analytics of web/mobile visitors
- Predictive modelling for trial users
- Intelligent remarketing automation

DATA SCIENTIST, DIGITALSLBI

Delivered a system to uncover audience insights from social network data.

- Deployed auto-scaling Spark on AWS
- Modelled social network data with billions of edges to build audience intelligence
- Knowledge transfer POC to inhouse team

DATA SCIENTIST, MADE.COM

Deployed 'online' machine learning models which integrated to their ecommerce website.

- Realtime predictive machine learning
- Dynamic personalised product listings
- Intelligent product recommendations
- Data-driven marketing campaigns

DATA SCIENTIST, SECRET ESCAPES

Uncovered optimisation opportunities by analysing clickstream data and designing hypotheses for A/B testing.

- Clickstream analysis
- Predictive modelling
- Data-driven A/B testing

DATA SCIENTIST, INTEL

Developed an intuitive recommendation engine which learned from implicit user signals to improve future recommendations.

- Implicit user behaviour analysis
- Product recommendations
- Bayesian solution for 'cold start' problem

DATA SCIENTIST, FREESAT

- Realtime Analytics & Reporting
- Integrating TV viewer data with 3rd-party data