

Mark Ustel

Contact Me

- He / Him
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- Harlow, Essex, UK

Education

Bachelor of Engineering
University of Hertfordshire
2003 - 2006

Skills

Empathise

UX, Design Thinking, CX

Data Acquisition

SQL, Hive, Hadoop, Web
Scraping, APIs, Telematics

Data Preparation

R, Python, Alteryx, Statistical,
Explanatory Data Analysis

Modelling

Regression, Image Recognition,
Machine Learning, Natural
Language Processing, Data Robot

Evaluation

Hypothesis Testing, Probability
Distribution, Correlation Matrix,
Confusion Matrix

Visualisation

Story Telling, Tableau,
QlikView/Sense, Shiny

Deployment

Markdown, Quarto, Google Cloud,
GitHub, Rstudio Connect

Community Engagement

STEM

An active STEM ambassador for
several years, and have
participated in Primary Engineer for
the previous five years

Vounteering

Hosted the Ho-Ho-Hospice event
for the previous three years

Provide education and career via
public speaking events through
Future First

Passionate and inquisitive analytically minded **Data Scientist**, strongly believing in the infusion of Data Science with **Design Thinking**. Combining strengths from both approaches ensures focus on the customer and problem definition, whilst delivering a **creative** and highly **analytical** solution with tangible and quantifiable outcomes. An experienced user of both **R** and **Python**, having a strong bias towards R due to its superior statistical ability and interactive web apps in Shiny.



Senior Data Scientist

Ford - Connected Vehicles

October-'20 to present

- » Developed a statistical based webapp that prevented £1M in buy backs
- » Delivered analysis to identify and support a \$3M cost saving on a high performance vehicle
- » Scaled a dashboard from 10k vehicles to over 6M
- » Simplified an existing query and dashboard to aggregate all analytics, including regression modelling, server side which reduced the dataframe from over 650M to less than 3k
- » Spearheaded the cloud migration for query, analytics, machine learning and dashboarding

Data Scientist

Ford - Innovation Lab

April-'19 to October-'20

- » Improved project completion rate by 30%, and reduced project time by 2 months utilising Design Thinking methodologies
- » Conceptualized machine learning (PCA) to identified \$45M and delivered over \$6M cost saving
- » Formulated a natural language processing algorithm to analyse over 17k ideas generated
- » Redesigned the interface for idea generation which doubled the number of ideas submitted whilst greatly enhancing customer satisfaction
- » Analysed and published a dashboard for diesel injector prognosis worth an estimated \$2M

Senior Data Analyst

Ford - Engine Development

March-'16 to April-'19

- » Proud inventor and author of a patent for Adaptively Controlling a Motor Vehicle Engine System
- » The first person to test, analyse and implement dual injection strategy on a European application at Ford which yielded a 1% improvement in fuel economy and a 7% uplift in torque
- » Created a tool to analyse overfuelling which enabled fuelling levels to be reduced by 12%
- » Utilising big data and developing algorithms helped successfully predict the hardware changes required to meet upcoming legislated CO2 limits

Data Analyst

Ford - Engine Development

August-'11 to March-'16

- » Invented a program to analyse and categorise fuel consumption delta that is still being utilised globally
- » Successfully developed algorithms to identify dynamic valve events
- » Developed a software strategy to improve idle combustion stability by over 50%
- » Remotely investigated and resolved an assembly production error that caused the plant to shutdown for 10 days

Systems Engineer Team Leader

Delphi - Engine Testing

February-'08 to July-'11

- » PID tuning enabled operating systems to have four times the lifespan
- » Created post processed and real time automated data quality checks saving over £2M
- » Developed a script that automatically writes test procedures saving over £115k pa
- » Implemented DOE testing strategy which reduced optimisation on a single cylinder engine by 2 months
- » Installed, configured and maintained systems which yielded a 15% increase in uptime and a £10k cost saving
- » Created and hosted several training courses in statistics and analytics

Technical Author

Boeing - CAD Integration

September-'07 to February-'08

- » Instantiate parts in Enovia to ensure timely part procurement to reverse delays worth in excess of \$100M
- » Interpreting engineering drawings to amend a variety of aircraft documentation
- » Authoring technical publications using Framemaker

