



CALLUM BRADSHAW

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https://callumbradshaw1.github.io 

>> DATA SCIENCE | MACHINE LEARNING

MOTIVATION

*I am passionate about understanding and **solving business problems** using Data Science & Machine Learning. I systematically & creatively use my skillset to **add tangible value** to the team, the business, and the end-user. I am constantly learning and always looking to improve.*

SKILLS & TOOLS

Programming: Python (Base, Pandas, Numpy, Matplotlib, Scikit-Learn, Keras), SQL, R

Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, k-means, PCA, Association Rule Learning, Causal Impact Analysis

Other: Power BI, Tableau, Statistics, Github, Data Visualisation, MS Office, AWS, Google Cloud Platform, Power Automate, Alteryx

EXPERIENCE

Data Scientist - AstraZeneca

SEPTEMBER 2021 - AUGUST 2022


- Power BI dashboard with automated alerts, reducing lab instrument downtime
 - Clarified current manual process with stakeholders
 - Created a dataflow to overcome slow data loading times
 - Used a fail-fast approach to tailor the dashboard to stakeholder's needs
 - **200 man-hours per annum saved** so the stakeholder could focus on proactive ways of stopping instrument failure instead of reactive methods
- **Business case technical lead** for enabling Python and R visuals in Power BI
 - Created complex visuals in R and Python such as PCA, tertiary axis plots, and correlation plots that aren't available in native Power BI
 - Equipped scientists to create, deploy and share their R and Python visuals in a more user-friendly environment
 - Allowed all chemists in department to have more clarity on data exported from experiments in the lab which reduces their time spent on exploratory data analysis
- Built and deployed multiple **linear & non-linear regression models in Python**
 - Created an interactive Python web app to replace off-the-shelf predictive software
 - Created parameter-driven user-friendly front-end enabling user to self-serve
 - Communicated regularly with stakeholders to clarify their requirements
 - Optimised first principle models to achieve 99% accuracy.
 - Extrapolation of sell-by-date to predict drug shelf life so reducing drug batch waste
- **Designed & delivered in-house training:**
 - 'Introduction to Python' course for 30 employees
 - 'Demo of Power BI - Department Managing workflow dashboard' to 50 people
 - 1-to-1 coaching: Introduction to Power BI, Advanced to Power BI, Business Statistics
- Co-author to an external pharmaceutical solubility publication including communicating with stakeholders from Amgen, Lilly, Pfizer, GSK,
 - Produced all the plots for the publication by using stats and data visualisation in R
 - Adapted my approach based on the requests of the other authors and delivering contributions promptly
 - Enabled discussions around the data in quantitative terms
 - Documented the analysis with an R markdown for the publication appendix
- Redesigned (using **Power Automate and Power BI**) and facilitating weekly stand-up
 - Used Power Automate to feed data from Microsoft planner into Excel
 - Developed a more intuitive and standardised way of reporting data to team weekly
 - Simplified work tracking for the team manager
 - Facilitated my team's weekly stand-up for 6 months and increased team participation

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Python Consultant - Leaseplan

JUNE 2022 - AUGUST 2022

- Taught an experienced software consultant to optimise Python use; reshaping and transforming their data
- Enabled data visualisation insights in Tableau to offer clarity for the product selection of corporate customers

Software Developer - InCyan

JUNE 2021 - JULY 2021

- Implemented full stack development using [angular](#) and [C#](#) to edit and produce websites by interacting with stakeholders within an [agile SCRUM team](#)
- Produced [Power BI](#) dashboards for LifeLanguages to enhance client experiences by creating insightful visuals that inform insights into effective communication

Tableau Developer - Surrey County Council

JUNE 2020 - AUGUST 2020

- Supported a more experienced [Tableau](#) developer. Assessing live dashboards for self-service by applying improved user-friendliness via standardisation between dashboards of common [date parameters](#), [dynamic titles](#) and [tooltips](#)
- Created a spreadsheet which logged proposed changes for quick approval, before implementing changes in Tableau

PROJECTS

Grocery Delivery Optimization

- Created & applied a [Genetic Algorithm in Python](#) to search out a near-optimal route across 10 addresses. This led to estimated [savings of up to 50%](#) in both delivery time and fuel consumption over a route based upon transaction order alone. This approach could be utilised across many industries as a way to find more optimal solutions.

"You Are What You Eat" Customer Segmentation

- Used [k-means clustering](#) on grocery transaction data to split out customers into distinct "shopper types" that could be used to better understand customers over time, and to more accurately target customers with relevant content & promotions.

EDUCATION

Mathematics and Statistics BSc

2019 - 2023 - University of Bath, UK - Grade 2:2

PUBLICATIONS

 Pharmaceutical Solubility Manuscript

COURSES & CERTS

Registered Scientist (Royal Society of Chemistry)

Data Science Infinity

Data Science with Python (DataCamp)

Power BI (edX)

Tableau Desktop I: Fundamentals (Tableau)

Alteryx Designer Core (Alteryx)
