CALLUM BRADSHAW

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https://callumbradshaw1.github.io

>> DATA SCIENCE | MACHINE LEARNING

MOTIVATION

Work to understand and solve business problems with Data Science & Machine Learning. I systematically use my skillset to add tangible value to the team, the business, and the end-user. Have saved over 200 work-hours per annum at AstraZeneca and contributed to getting a contract renewal worth €300m

SKILLS & TOOLS

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

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

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

EXPERIENCE

Data Analyst - OnePlan

SEPTEMBER 2023 - CURRENT

- Influenced data strategy to sustain the growth of a 15% user increase each month
  - Facilitated the growth of data champions in each department; meeting 4 colleagues one-on-one to train up in Power BI and discuss how to use data to drive business decisions
- Developed a Google form for colleagues to submit data requests and created 5 Power BI Service Workspaces and relevant dataflows for self-service with scheduled refresh
- Extracted data from the SQL database and then utilised pivot tables and VLOOKUP to analyse effectiveness of 10 current marketing campaigns
- Incorporated use of Tableau, Power BI, Salesforce, Google Analytics and Google Ads to understand user behaviour. Analysed time-series data to pinpoint markets OnePlan should target with sales and marketing
- Communicated stakeholder's needs weekly with CTO to make sure the right data is in the backend to create actionable insights

Data Scientist - AstraZeneca

SEPTEMBER 2021 - AUGUST 2022

- Power BI dashboard with automated alerts, reducing lab instrument downtime
  - Clarified current manual process with stakeholders and designed a dataflow to overcome slow data loading times in Power Query from 7 hour to 20 minute loading time
  - Incorporated a fail-fast approach to tailor the dashboard to stakeholder's needs to achieve *200 man-hours per annum saved* so the stakeholder could focus on ways of stopping instrument failure instead of reactive methods
- Business case technical lead for enabling Python and R visuals in Power BI
  - Pioneered 3 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 R and Python visuals in a more user-friendly environment which enabled more clarity on data from the chemists experiments in the lab
- Built and deployed 10 linear & non-linear regression models in Python
  - Produced an interactive Python web app to replace off-the-shelf predictive software with parameter driven user-friendly frontend enabling user to self-serve
  - Communicated regularly with stakeholders to clarify the requirements to achieve optimised first principle models with 99% model accuracy
  - Extrapolation of sell-by-date to predict drug shelf life which reduces drug batch waste and saves AstraZeneca £10m every year and massively reduces carbon emissions

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Python Consultant - Leaseplan

JUNE 2022 - AUGUST 2022

- Taught an experienced software consultant to optimise Python use; designed and constructed python workflows for benchmark & fuel consumption forecasting tool
- Result: re-signed 5-year €300m contract with the 2nd largest international client

Software Developer - InCyan

JUNE 2021 - JULY 2021

- Learnt full stack development in angular and C# to edit and produce 1-2 websites by interacting with stakeholders within an agile SCRUM team
- Produced Power BI dashboards for LifeLanguages to enhance client experiences by insightful visuals that informed scale of effectiveness in the 7 life languages

Tableau Developer - Surrey County Council

JUNE 2020 - AUGUST 2020

- Led the initiative to improve user-friendliness of self-service dashboards by implementing standardised date parameters, titles, and tooltips, resulting in a 30% increase in user adoption and improved data-driven decision-making capabilities for cross-functional teams
- Created a spreadsheet that logged 50 proposed changes for quick approval, before implementing changes in Tableau

PROJECTS

"You Are What You Eat" Customer Segmentation

- Built & applied a k-means clustering Algorithm in Python to segment grocery shoppers into 3 groups by the customer purchases of the main food categories
- Led to finding out that customer purchases are based on dietary requirements. Found that 73.6% of the customer base had no dietary requirements, 11.8% were vegetarian and 14.6% had vegan diets

Deep Learning Image Search Engine

- Implemented the VGG16 model to create a search engine for an online shoe retailer to show customers similar products to the one they are looking at online
- Authored a piece of code that applied deep learning techniques to a 300-image dataset that allows customers to get the shoe recomendations based on what the current shoe they are viewing by using cosine similarity score

EDUCATION

Mathematics and Statistics BSc

SEPTEMBER 2019 - JUNE 2023

University of Bath, UK - Grade 2:2

PUBLICATIONS

Pharmaceutical Solubility Manuscript

COURSES & CERTIFICATIONS

Registered Scientist (Royal Society of Chemistry)

Data Science Infinity

Data Science with Python (DataCamp)

Tableau Desktop I: Fundamentals (Tableau)

Alteryx Designer Core (Alteryx)