Joseph Whittaker

Data Science | Analytics

+61 423 558 302 | joseph.whittaker567@gmail.com | linkedin.com/in/joseph-e-whittaker/ | github.com/JoeyWhit

MOTIVATION

I am passionate about **solving business problems** using Data Science & Analytic. I systematically & creatively use my skillset to **add tangible value** through data-driven decision making. I am detail oriented, scientifically driven, constantly **learning** and always looking to improve.

SKILLS & TOOLS

Programming: SQL, Python (Base, Pandas, Numpy, Matplotlib, Scikit-Learn, Jupyter), Mathematica, Fortran
Tools: Excel, Tableau, Github, Jira
Math: Linear Algebra, Statistics (Hypothesis Testing, AB Testing, Central Limit Theorem, Distributions),
Machine Learning: Linear Regression, Logistic Regression, Decision Trees, Random Forest, KNN, k-means, PCA, Association Rule Learning, Causal Impact Analysis

WORK EXPERIENCE

Data Science Intern, DiGiCOR (Melbourne, AUS) Nov 2022 – Feb 2023

- Developed a **sales dashboard** in a term using **Python**, to display and understand key metrics of the business using **Streamlit**.
- This led to better insights into how the business is performing and operating.
- Built the foundation of documentation for future integration and improvements using Jira software.

PROJECTS

The "You are What you Eat" Customer Segmentation (K-Means clustering)

- Used **k-means clustering** on grocery transaction data to split out customers into distinct "shopper types".
- This ensured we could better understand customers over time, and to more accurately target customers with relevant content & promotions.

Predicting customer loyalty using ML (regression)

- Used and compared different machine learning (ML) algorithms, to predict the *customer loyalty score* for customers that did not have one.
- This was done to enable our client get an understanding of true customer loyalty and allow for more accurate and relevant customer tracking, targeting and communication.

PROJECTS (CONT'D)

Astrophysics Research Project - Analysing the Dynamics of Mercury

- Investigated multiple input variables for a simulation of the dynamics of Mercury, leading to unique outputs.
- Documented progress using LaTeX, and coded using Python, Linux and a virtual environment.
- Found upper limits to variables that give rise to certain dynamics of Mercury, leading to better insights in how Mercury operates.

EDUCATION

BSc (Astrophysics) 2021 - 2024
Monash University, AUS

- Completed a science degree majoring in Astrophysics with minors in Mathematics and Physics.

COURSES, CERTIFICATES AND QUALIFICATIONS

Data Science Professional Certification 2025 - Present
Data Science Infinity

Actionable Learnings:

- Extracting & manipulating data using SQL.Application of statistical concepts such as hypothesis tests for measuring the effect of AB Tests. Utilising Github for version control, and collaboration.
- Using Python for data analysis, manipulation & visualization.
- Applying data preparation steps for ML including missing values, categorical variable encoding, outliers, feature scaling, feature selection & model validation.
- Applying Machine Learning algorithms for regression, classification, clustering, association rule learning, and causal impact analysis for measuring the impact of an event over time.
- Machine Learning pipelines to streamline the ML pre-processing & modelling phase. Deployment of an ML pipeline onto a live website using Streamlit.
- Using Tableau to create powerful Data Visualizations.
- Turning business problems into Data Science solutions.

REFERENCES

Dr Kaejenn Tchia from Bupa, Mentor & Dentist
+61 488 228 837

Sumanth Arveti, Senior IT Cloud Consultant & Mentor
+61 421 714 704

Alexander Heger, Associate Professor at Monash University Clayton
Alexander.Heger@monash.edu

Roham Hosseini from DiGiCOR, Internship supervisor and Marketing specialist
+61 (3) 9567 8307