

NUWAN THUDUWAGE DON

>> DATA SCIENCE | MACHINE LEARNING

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MOTIVATION

I am passionate about **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, SAS

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

Other: Statistics, Github, Data Visualisation, MS Office, Tableau, Jupyter Notebook, AWS, Google Cloud Platform

EXPERIENCE

Senior Insights Analyst - Company X

JULY 2019 - PRESENT

- To combat increasing churn, I built a **customer churn model using Logistic Regression in Python**. Customers deemed highly likely to leave (> 75% probability) were put onto a retention programme leading to a **24% reduction in churn** (vs. control group)
- Using **product association metrics and clustering techniques** I lead the creation of six Neo-Genres that represented true, customer driven categories that are used for content recommendation. This led to an **increase in "customer-on-site" time of 5%**
- Built a predictive model using a **Random Forest in Python** that estimated customer loyalty scores for customers that Company X's data agency couldn't tag (r-squared 93%). This led to a **30% increase in customers** we could analyse, and contact with promotional material.
- Facilitated and lead an **interactive brainstorming day** for students studying Data Analytics at ABC University

Junior Analyst - Company Z

JULY 2016 - JUNE 2019

- Used **SQL & Tableau** to automate the extraction of credit data, and create a dynamic weekly report that helped senior leadership **understand and investigate trends over time**, and diagnose potential issues

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

BCA/BSc (Marketing/Psychology)

2004 - 2007 - Victoria University, NZ

COURSES & CERTS

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 & visualisation. 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 a ML pipeline onto a live website using Flask & Heroku. Turning business problems into Data Science solutions.

NLP 101 (Udemy)

Actionable Learnings: Sentiment Analysis on customer reviews. This could be utilised to flag up customer complaints to a dedicated support team, improving customer satisfaction