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SUMMARY

Experienced Data Science professional with a strong background in analytics, machine learning, and data visualization. Developed impactful solutions across fintech, retail, and government sectors, utilizing tech such as SQL, Azure Databricks, Power BI, Python and its related machine learning and analytics libraries, and more. I enjoy automating processes, sharing knowledge and learning from others, and delivering actionable insights to stakeholders.

EXPERIENCE

MUSGRAVE

Data Scientist | May 2023 – Oct 2023

- Data Scientist for Ireland's largest retail group - Insight & Innovation Department.
- Drive projects in various areas: product /sales analytics, customer behaviour analytics (**RFM, LTV**), loyalty (**Surveys, NPS & Sentiment Analysis**), and marketing (**Segmented Email Personalisation**).
- Creation and management of scheduled **ETL pipelines** and **data models** in **Azure Databricks**, ensuring data is readily available and refreshed for consumption by visualization tools.
- Utilise best in class dashboard & visualization techniques in **Power BI & Python** to derive business value and guide strategic initiatives. (**Key Driver Analysis Matrix**).
- Clearly and concisely explain technical findings to non-technical peers and senior business stakeholders.
- **Example projects:**
 - Automated theme & sentiment extraction of customer free-text surveys (**NLP**), reducing man hours and need for manual categorization of feedback.
 - New product launch - first year sales estimation (**Sklearn, Catboost**).
 - Automated email audience segment personalisation & product recommendations.
 - Short term ad-hoc analyses as required (e.g. external event impact on product sales, queueing analytics, traffic analysis etc.).
- Tech used: Databricks, Power BI, Python, SQL, PySpark, Scala.

GRANT THORNTON

Business Intelligence Consultant | Jul 2021 – Jul 2022, **Assistant Manager** | Jul 2022 – Apr 2023

- Data analytics consultant for a variety of private & state bodies in Product & Retail, Trade & Enterprise, Education, Healthcare & Pharma.
- Conducted machine learning research & development (**Python, R, Azure AutoML**) – e.g. customer wait time prediction, KPI breaches / anomaly detection, forecasting, survey analysis (**NLP**).
- **Power BI** dashboard development; **SQL** database development, data modeling & management.
- Conduct regular presentations to non-technical stakeholders.
- **Process Automation** internally within Grant Thornton and externally / client facing.
- Provide oversight and mentorship to junior staff working on analytics projects to ensure high quality outputs within deadlines.
- Hold regular internal training seminars on Data Analytics topics, fostering growth and interest of the subject amongst non-technical team members.
- Review CVs and act as **Data Science & Analytics subject matter expert** in interviews.

Achievements

- Received multiple internal awards (nominated by colleagues) for recognition of Data Analytics work.
- Eliminated overtime hours on long-term client job through automation of large C-suite report.
- Developed mission critical cloud-based and interactive reporting solution for a large government body to replace manually generated reports.
- Promoted to Assistant Manager within one year.

ALLEGIAN.TE

Data Scientist | May 2019 – Apr 2021

- Data Scientist for AnPost Bank's Moneyback Programme. Developed machine learning models (**LTV, Churn, Next Purchase Prediction**), analytics, and visualizations of operational and customer metrics using various tools – **Python, SQL, R, Rest APIs**.
- Translated complex analytics to actionable results for non-technical stakeholders.
- **Automated KYC / Identity Verification / Fraudulent Account** detection for bank onboarding via Rest APIs and custom rule-based classification models.
- Built **predictive models (ScikitLearn, Keras)** to solve complex business / retail questions – sales forecasting, customer lookalike models, entity resolution.
- Developed **customer segmentation** models based on a variety of large and disparate datasets, transaction patterns and demographics to measure and improve loyalty and acquisition (e.g. **RFM / CLV modelling**).

Achievements

- Developed **Process Automation** App with GUI (Python). Monthly manual transaction process was reduced from several hours to roughly 10 minutes. Human error was eliminated.
- Developed Python tool to automatically sanitize, correct & enhance customer data prior to loading to SQL database. Substantially **reduced manual workload** on 70%+ of customer records.

IRISH GUIDE DOGS

Marketing Assistant | Feb 2013 – Feb 2015, **Marketing Officer** | Feb 2015 – Mar 2018

- Planned and Managed nationwide marketing campaigns (Direct Mail, Phone, Online, TV), conducting regular pre and post-campaign data analysis to ensure KPIs are met or exceeded, and identify opportunities for improved performance.
- Forecast and budget monthly and multi-year revenue for the CEO and Board of Directors.
- **Maximised income** via precise marketing lists, A/B testing, and ensuring donors receive the highest level of care. **Minimised costs** by increasing process efficiency and ensuring expenses are within/below budget.
- Managed Teams of volunteers through marketing campaign logistics.
- Project managed successful delivery of new CRM marketing system – working with Database Admin in creation of campaign data analysis/extraction processes, troubleshooting, testing and tracking (JIRA)

Achievements

- Reduced the cost of a popular biannual marketing campaign by 70%, resulting in a **400% R.O.I.**
- Created a new, sustainable, low-cost annual income stream via IRS Charitable Donation Scheme

EDUCATION/QUALIFICATIONS

Postgraduate Degree: Data Science & Analytics | 2019 | Munster Technological University

- Graduated First Class Honours - Top of Class. **Thesis:** Neural Network based Cancer Detection Model

Microsoft Certified Power BI Analyst | 2022 | Microsoft

Prince2 Project Management Practitioner | 2021 | Axelos

Diploma in Digital Marketing | 2017 | Irish Time Training Institute

Bachelor Of Science: Geology | 2007 | National University of Ireland, Galway

SKILLS

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|---------------|--|-------------------------|
| • Python, Git | • Databricks, DBT, BigQuery | • Excel Macros & VBA |
| • SQL, DAX | • Power BI, Tableau | • MS Office |
| • Pyspark | • Data Mining, Machine Learning, Visualisation | • Business Intelligence |
| • R | | • Process Automation |