

NIXON NG

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PROFILE

Data Engineer with 2 years of consultant experience transforming commercial data ecosystems. Slashed migration timelines by 67% while ensuring 99.99% data accuracy for FTSE 100 clients. Architected and implemented scalable ETL/ELT pipelines processing 20GB+ weekly across AWS and Azure. Currently advancing expertise through MSc Data Science with focus on Big Data, Deep Learning, and AI to deliver next-generation data solutions. Personal/Work-related projects available on <https://github.com/Nixonngzh/Portfolio-Guide>

PROFESSIONAL EXPERIENCE

Data Engineering Consultant, Kubrick Group, United Kingdom

Jan 2023- Sept 2024

Overview

- Developed practical skills in SQL, Python and data-driven mindset from training for client work deployments
- Built and improved ETL pipelines using automated airflow jobs for Airlines client, resulting in 300% increase in data loading/checks efficiency for British Airways product suite. (i.e. Avios Hotels, Wine Flyer, Avis Carhire)
- Managed AWS Redshift end-to-end pipelines for loyalty end-users whilst replicating migration data to Snowflake
- Deployed Github Action jobs using SQL scripts with agile test-driven development approach

Data Engineer, IAG Loyalty (Client)

- Performed data quality analysis and generated Airline Loyalty metrics reports for C-Suite decision-making, ensuring data error rate below 0.01% through automated validation using Tableau and SQL
- Productionized Airflow DAGs on migration data refreshes of 20GB/week from AWS S3 to Redshift/Snowflake using Matillion SQL, Python scripts and AWS Services (Lambda, Glue & EC2)
- Collaboratively developed/documented high-level data model, mapping and validation framework with client for European Airlines back-end (British Airways, Iberia, Vueling, Aer Lingus) via Jira & Confluence

Data Project Lead (Kubrick Internal)

- Developed a RAG chatbot powered by OpenAI SDK, Langchain, & Neo4j to improve consultant training capabilities
- Automated Dbt pipelines for data transformation, cleaning, lineage and quality checks on Snowflake
- Established comprehensive data schemas, data dictionaries, stakeholder lists and critical data attributes (CDAs)
- Generated synthetic data using Python to represent Salesforce incoming feed into Snowflake through Azure Cloud

Virus Research Analyst, University of Bath, United Kingdom

Mar 2021- Aug 2021

- Conducted epidemiological modelling to analyze COVID-19 transmission across UK cities using WHO data
- Applied time-series forecasting and geospatial analysis to assess virus spread
- Created interactive dashboards in Tableau to visualize insights for academic research

EDUCATION

City University of London, MSc in Data Science

Sept 2024- Oct 2025

- **Modules:** Big Data, Deep Learning (AI), Natural Language Processing, Computer Vision, Visual Analytics
- **Tools used:** Python, Apache Hadoop & Spark, Google Cloud Platform (GCP), Tableau, PowerBI, Observable

University of Bath, MEng in Chemical Engineering

Sept 2017- Jul 2022

- **Overall 2:1.** Engineering Product Design & Real-Time Python Simulation, Process Modelling and Control

VOLUNTEERING

Covid-19 Relief Campaign Co-organizer, HappyBankCrew Food Bank

Aug 2021- Oct 2021

- Led fundraising efforts, securing RM15,000 (£3,000) within 2 weeks for emergency food supplies
- Managed stakeholder relations, engaging donors, food banks, and community media

SKILLS AND CERTIFICATIONS

Skills

- **Programming Languages:** Python (Pandas, PySpark, Tensorflow), SQL, JavaScript, Cypher
- **Data Engineering:** ETL/ELT Pipelines, Dimensional/Data Vault Modeling, Matillion, dbt, Apache Spark & Kafka
- **Big Data & Analytics:** Apache Hadoop, Tableau, PowerBI, Neo4j, BigQuery, Looker Studio, Grafana, Excel
- **Databases, Warehouses & Cloud:** PostgreSQL, Salesforce, Snowflake, Databricks, AWS, Microsoft Azure, GCP
- **DevOps:** Github Actions, Azure DevOps, Bitbucket, Docker, Kubernetes, Apache Airflow, Jira, Confluence

Certifications

- Databricks Lakehouse Fundamentals, Snowflake Hands-on Essentials, Neo4J Certified Professional, AWS Certified Cloud Practitioner (In Progress)