Oliver Burden



Professional Profile

Experienced Data Engineer and visualisation specialist with 10+ years of hands-on expertise in SQL Server optimization and performance tuning. Proven track record of delivering scalable, secure, and efficient systems across BI, support, and data governance domains. Skilled in automating workflows and advancing cloud adoption using Microsoft Azure and Purview. With roots in data-intensive scientific environments, I've evolved into a data professional focused on operational efficiency, data quality, and intelligent automation.

Key Skills & Methodologies

- Databases & ETL: SQL Server (2012–2017), T-SQL, SSIS, custom ETL tools
- BI & Reporting: Tableau, SSRS, SSAS, Data Modelling
- Database Optimisation: Query tuning, indexing, execution plan analysis, performance troubleshooting
- Collaboration: Cross-functional teams communication and technical documentation
- Version Control: SVN, TFS, GitHub
- Programming & Automation: Python, PowerShell, VB, VBA, Terraform, Java
- Unit test: Python,tSQLt
- Cloud & Governance: Azure, GCP, Microsoft Purview

Professional Experience

Career Break November 2024 – Present

- Led a home groundworks project to extend my home
- Creation of a proof-of-concept, data product using Microsoft Purview, showing the break down of the financial cost of scanning assets
 - Built a modular Terraform and Python framework for deploying Purview resources ,to show the cost benefit analysis of using purview
- Investigating the most ideal way to produce test data from metadata
- Exploration of the maths behind Machine Learning

Production Support Analyst, TSYS

March 2020 - October 2024

Focus: Support, maintenance, and automation

- Maintained and enhanced SQL Server and Tableau environments while providing application support to
 ensure performance, reliability, and effective user experience.
- Analysed execution plans and optimised indexing strategies to improve query performance
- · Maintained data alignment and integrity across dev, staging, and production environments
- Automated server environment monitoring using PowerShell scripts to detect anomalies and reduce manual checks.
- Collaborated with developers using GitHub
- Automated file uploads to GCP with Python for efficient data pipeline execution
- Replaced PowerShell with Python to enhance Tableau automation robustness
- · Documented data flows and technical processes for improved transparency and maintainability
- Refactored legacy SQL/ETL processes to reduce technical debt, improve logging, and increase maintainability across data workflows.

Focus: Development and data architecture

- Designed and maintained logical and physical relational data models
- Constructed new ELT process as and when needed
- Optimised SQL Server databases via stored procedures
- Migrated multidimensional data structures to flattened models to enhance efficiency
- Implemented automated Tableau reporting workflows using TabCMD
- Led strategic change initiatives and proactively mitigated risk

Database Specialist, NHS Digital

July 2011 - August 2016

- Ensured data integrity and compliance across datasets published to the website
- Self-taught Java to automate national data submissions, reducing manual data uploads from several days to hours while improving accuracy.
- Translated mathematical clinical indicator specifications into production-ready SQL
- Developed unit tests (tSQLt) to safeguard legacy routines against changing dependencies
- Maintained and supported the in-house Clinical Indicator Database (CID).

Contracting (ASDA, NHS Digital)

ASDA, VBA Developer

March 2011 - June 2011

Supported data acquisition process from Walmart to ASDA platforms

Information Analyst, NHS Digital

January 2010 - October 2010

- Developed/enhanced: the versatility of an in-house Indicator Packaging System
- Designed, developed and supported CID to hold bespoke information about the indicators
- Translated written mathematical indicator specifications into SQL
- Production of Technical Documentation of procedures and process

Mushroom Advice & Analysis, Director / Laboratory Scientist

September 1999 - October 2009

- Developed a 98% accurate multivariate model using NIR spectroscopy to predict compost chemistry a
 UK industry first.
- Monitored and validated the model to ensure ongoing accuracy of the analysis.
- IT support and data domain expert.

Education

University of Dundee | Scotland | master's degree in data science 2014-2016 Sheffield Hallam University | UK | Bachelor of Science in Biomedical Science 1995-1999