Oliver Burden



Professional Profile

My passion for computers and mathematics has been the cornerstone of my academic and professional journey, driving me to explore the intersection of technology and analytical problem-solving.

My work reflects a strong commitment to leveraging technical expertise and creative thinking to develop innovative solutions to complex problems. I am passionate about leveraging automation, data engineering, and business intelligence to drive operational efficiency and strategic decision-making."

Professional Experience

Total System Services (TSYS)

A global payment solutions company that offers technology and services to businesses and financial institutions. TSYS provides a wide range of payment processing solutions, including credit/ debit card processing, fraud prevention, data security, and other related services.

Production Support Analyst

March 2020 - October 2024

Responsibilities

Managed production support for SQL Server and Tableau, ensuring system stability

Accomplishments:

- To enhance the robustness of the Tableau automated process, PowerShell was replaced with python to interact with the Tableau API instead of the tableau back-end, making the process more reliable and platform-independent, as the organisation was embarking on migrating to the cloud.
- Developed a Windows service to log missing SQL jobs, reducing downtime and improving system reliability
- Collaborated closely with the business to implement an automated workflow for refreshing Tableau data sources and downloading reports, eliminating the dependency on business analysts for these routine tasks. While this shift reduced the need for analyst involvement, it also streamlined operations by decreasing the number of reports requiring maintenance from the support staff.

Business Intelligence

August 2016 - 2020 March

Responsibilities

- SQL Server (2012,2016, 2017) and Tableau (10 to 2023) Application Administrator
- Analysing SQL processes and proactively adapt to ensure solutions remain robust
- Designed and implemented stored procedures and optimized database performance through tuning strategies, improving efficiency and query execution times
- Produce technical documentation of processes and procedures

- Managed the change management process, ensuring seamless implementation of system updates, minimizing disruptions, and maintaining operational continuity
- Diagnose and resolve issues within the production environments, ensuring system stability, optimizing performance, and minimizing downtime through proactive monitoring and root cause analysis.
- Provided support, development, and strategic advice on optimization solutions, evaluating options such
 as multi-dimensional cube to ensure the most effective approach for business needs while minimizing
 support requirements.
- Identify risks within team processes and procedures, implementing mitigation strategies to minimize potential issues.

Accomplishments:

- Automated Tableau using Tableau's back-end method (TabCMD), eliminating the need for support staff to manually monitor the process.
- Leveraged data profiling skills to transition from a multi-dimensional cube to a flatter data structure, resulting in faster load times, improved maintainability, and enhanced efficiency for Tableau reporting.

Technology Used: SQL stack, MDX (Multidimensional Expressions), Git, SVN, Tableau, python, Visual Basic, PowerShell and R

Health & Social Care Information Centre (HSCIC)

An organization responsible for collecting, analysing health and social care data to support decision-making in the National Health Service (NHS) and other healthcare organizations.

Database Specialist

July 2011 - August 2016

Responsibilities

- Provided database application administration and optimization, ensuring data integrity and compliance within NHS systems
- Lead developer on the Nesstar project
- Managed data quality issues and ensured timely data submission to the portal, mitigating risks and meeting production deadlines efficiently.
- Supported and maintain the in-house clinical indicator platform.

Accomplishments:

- Effectively managed workflows outside my direct control by implementing proactive monitoring, stakeholder collaboration, and automated solutions, ensuring seamless operations and timely project completion.
- Led the development of an automated data loading solution for NHS Nesstar, reducing manual effort from days to hours by integrating Java-based automation.

Information Analyst

January 2010 - Oct 2010

Responsibilities

- Developed/enhanced: the versatility of an in-house Indicator Packaging System
- Designed, developed and supported: a database to hold bespoke information about the indicators

• Indicator development: translated written mathematical indicator specifications into SQL • Production of Technical Documentation of procedures and process

Accomplishments:

- Developed a single dynamic SQL stored procedure to replace multiple existing procedures, simplifying the application's complexity and therefore optimizing its functionality.
- Developed VBA modules to automate data cleaning and database import routines, eliminating manual and repetitive tasks. This automation significantly improved the quality and accuracy of the source data.
- Created a front end to enable immediate validation of the indicators for non-technical users.

Technology Used: Nesstar, Java, Microsoft Visual Source Safe, octopus (a change management tool), SQL Management studio, VBA and MS Excel.

ASDA

One of the largest supermarket chains in the United Kingdom, offering groceries, clothing, home goods, and financial services.

VBA Developer

Mar 2011 - Jun 2011

Responsibilities & Accomplishments

 Contracted to design and implement a streamlined process for acquiring and manage a Walmart dataset in Microsoft Access

Mushroom Advice & Analysis

A laboratory specialising in the analysis of mushroom compost

Director / Laboratory Scientist

September 1999 – October 2009

Responsibilities

- Developed and monitored a multivariate calibration model for compost
- IT support and data domain expert.

Accomplishments:

- Reduced overheads of the organisation
- Implemented IT procedures and methodologies to enhanced efficiency
- Analysed a large, complex dataset of chemometrics data to develop a sustainable multivariate calibration
 model, successfully implementing NIR calibration as a validated method for mushroom compost analysis.
 This innovation enabled the laboratory to operate efficiently with a reduced schedule, allowing it to open
 just one day a week instead of 5 days a week, leading to significant cost savings.

Technology Used: PC Networks, VMware, Visual Basic and crystal reports

Education

University of Dundee | Scotland | master's degree in data science 2014-2016

Sheffield Hallam | UK | Bachelor of Science in Biomedical Science 1995-1999

Key Skills & Methodologies

Databases & ETL: SQL Server, T-SQL, ETL Processes, Data Pipeline Optimization **Business Intelligence & Reporting:** Tableau, SSRS, Data-Driven Decision Making **Programming & Automation:** Python, PowerShell, VBA, R, Java, Predictive Modelling

Process Optimization & Monitoring: Proactive Monitoring, Performance Tuning, Technical Documentation