LUKE BURGESS

ABOUT ME

Using data to create that eureka moment and grow businesses one insight at a time. Capitalising on the most fundamental asset to an organisation and helping to make the world a better place through data stories and transformation. With a Masters in Chemical Engineering I specialise in harnessing data to help utilities empower their employees to reach their full analytical potential. This has ranged from energy to water and waste sectors where I have worked in both engineering and technology roles. This gives me a good understanding of the business needs of a large organisation and the ability to identify and realise value for the business. I am at my best when in an innovative and collaborative environment, able to problem solve and deliver forward thinking solutions to see tangible benefits. I thrive on the chance to see real world changes to the environment and society that we can create. In my personal time I enjoy all things athletic having run multiple half marathons for QEH Birmingham and will forever be a shed head with Gloucester rugby.

CONTACT

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07856607494

Available to relocate/remote

QUALIFICATIONS

First Class Masters in Chemical Engineering The University of Bath 2018

MS DP-200

MS Az-900

MS Az-104

SAFe® 5 Agilist

Experience

Severn Trent Water Data Solution Architect 2021

- Technical lead within solution architecture team for data, working closely with enterprise architects to create exciting solutions from business requirements and guide architectural roadmaps aligning to the overall domain strategies focussed around ELT.
- Designed and implemented with data engineering teams an Azure cloud data platform including data lakes, warehouses, ML and reporting tools like Power BI, Azure ML as well as digital twins and modelling softwares.
- Provided design in collaboration with a third party to migrate a customer billing reporting system from legacy on-prem oracle to Azure IaaS.
- Designing and technical guidance for ETL from SaaS products with internal SAP BW4HANA for large capital project reporting with Power BI dashboards. Utilised Azure Databricks for Spark processing to data marts.
- Delivering an asset health dashboard from tens of sites and thousands of network sensors to provide real time analytics for hundreds of business users.
- Established the PoC design pattern for integrating telemetry stream data feeds from on-prem MQ to Azure technologies using python and docker containers to translate for Event Hubs.
- Data governance, cataloguing, modelling design and strategy work.

Severn Trent Water RPA Scrum Master 2020

- Working across two scrum teams within a SAFe agile release train for robotics & process automation and procuring and delivering SaaS products.
- Upgrading a 20-year-old fleet management system, tax analysis software and a CRM permitting solution for visitor sites.
- Agile project management to facilitate the RPA team through software dev and release cycles. This focussed on SAP, financial and SaaS systems.

Severn Trent Water Cloud Solution Architect 2019/20

- Oversaw the on-prem to Azure cloud data centre migration.
- Both high-level programme as well as more detailed scrum team support.
- Full stack replatforming and lift and shift architectural designs for the team.
- Development and governance around the use of terraform and Azure DevOps to develop and deploy infrastructure as code in an on-demand, DevOps fashion.
- Built out of critical landing zone infrastructure, delivered 2 full stack applications in multiple environments, developed critical private networking infrastructure with governance for Service Endpoints, Private Link and Service Map.
- Foundational work on desired state with Chef and PowerShell DSC.
- Coding, DevOps and automation workshops to assist in team's transition from traditional infrastructure engineers to cloud engineers.

Severn Trent Water DevOps Engineer 2018/19

- Established and used tool likes Jira, GitHub, Chef, Jenkins and Azure DevOps to alleviate testing environment congestion in technology through automation and CI/CD. Further, created guardrails for IaC using terraform and ARM templates.
- Included migrating numerous code repositories from old subversion servers to GitHub as well as introducing best practises for collaborative code development.

TECHNICAL SKILLS

Python	Advanced
VB.Net	Expert
SQL	Advanced
Spark	Competent
SQL Server	Advanced
Terraform	Expert
JSON/XML	Advanced
PowerShell	Competent
Oracle	Competent
Azure Cloud Infra	Expert
Delphi	Competent
Windows	Advanced
HTML5	Competent
CSS	Competent
JavaScript	Competent
PowerShell DSC	Competent
C++	Competent

SOFT SKILLS

Scrum Mastering	Advanced
Coaching	Competent
Pair Programming	Competent
Strategy	Advanced
Design	Advanced
Structured Problem Solving	Competent
Lean	Advanced
Communication	Advanced
Team Leadership	Advanced

OTHER

Adobe CC	Competent
Midlands Azure User Group	Group
Lean Coffee	Group

TOOLS

Power BI	Expert
Jira	Expert
Azure DevOps	Expert
GitHub	Advanced
SVN	Novice
MS PowerApps	Novice
MS Power Automate	Competent
Trello	Expert
Jenkins	Competent
SSMS	Expert
Chef	Competent
Visual Studio Code	Expert
Jupiter Notebook	Competent

- Collaboratively developed DevOps and lean strategies to embed within the delivery trains. Detailing concepts in flow, feedback loops, standardisation of work and continual learning culture and led to winning the Most Successful Cultural Transformation Award from the DevOps Industry Awards.

EnviroSim Associates Ltd - Canada – Software and Data Engineer 2017

- Developed an analytical program to allow for pre-processing and analysis of time-varying influent flow data into wastewater treatment plants.
- MVP was developed in VB.Net which was extended to create a multi-platform .Net and Delphi application for Mac and Windows after good customer feedback, reducing processing time by 90%.
- Proved that main product, BioWin could be ported for other operating systems using the VCL framework and Fire Monkey.
- Expanded incorporating other miscellaneous flow analysis tools.
- Used the wastewater simulation software, BioWin extensively to provide characterisation of inputs and to create wastewater engineering designs.

Summer Placement RWE npower 2015

- Created a program for combustion optimisation and emission control of a large UK power station.
- Intended to reduce the amount of time engineering support spent providing optimisation help to site which was estimated at 15 to 20 fte hrs/month/site.
- MVP was created using Excel Visual Basic and then later ported to a basic webpage using HTML, CSS and JavaScript.
- Programme used for training of operators and optimisation of modified units.
- The SCADA Osisoft System was also used on placement to fetch and analyse data from the plant to provide remote combustion optimisation support.

University of Bath Senior Outreach & Admissions Ambassador 2013 to 2018

- Worked with young students from disadvantaged backgrounds to try to help improve their links and promote their engagement with higher education.
- Led activities, groups of ambassadors and presented at large open days.

Extra Projects & Experience

Python Development 2020/21

- Personal data science projects in Python using VSCode, Jupiter Notebooks and Anaconda. Libraries including NumPy, Pandas, seaborn, TensorFlow.
- Access APIs to pull data on recent games to share analytics with a community.

Agile Workstreams 2018 to 2020

- Helping to embed good SAFe agile practises within the organisation.
- Developed Power BI dashboards to track employees' skills across technology and track skill gaps for leavers.

Severn Trent Employability & Graduate Mentoring 2019/20

- Working group to support internships and increase the employability of young adults with additional needs, with a record number over the 2019/20 year.
- Conducted interviews, onboarding, ongoing coaching while on scheme.

Third Year Research Project & MATLAB Modelling 2016/17

- The study aimed to assess the suitability of metal organic frameworks (MOFs) for use in mixed matrix membranes (MMMs).
- Developed my own code repository of bash scripts to go beyond the original, expected scope and analyse many more structures.
- Modelling work to solve complex differential equations over the reactor.

Chemical Engineering Design Projects 2013 to 2018

- First-year: design a design a distillation column. Third year: design a methanol production system. Final year: design a water treatment plant for disaster relief.

Freelance Web Coding **2016/17**

- Development using WordPress and Svelte with HTML, CSS and JavaScript.