

# Alex John Bush

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EMPLOYMENT HISTORY

## Digital Lighthouse, KPMG New Zealand (NZ)

From August 2019 to now

Data and Analytics consultant leading and delivering projects for public and private sector clients. Drove internal innovation for tools and platforms to increase our delivery capability and technical maturity. Invested heavily in mentoring of team members, fostering a culture of learning and collaboration alongside maintaining delivery excellence.

### Associate Director

From April 2022 to now

Chapter Lead for Engineering. Led and oversaw business development and engagement delivery, and identified and delivered strategic investments in technology and mentoring to ensure delivery capability and capacity. Managed relationships with senior client stakeholders to ensure effective delivery of complex engagements.

### Senior Manager

From April 2021 to March 2022

Solution design and delivery of end-to-end analytics platforms for public-sector clients. Designed and delivered zero-trust platform architectures of PaaS and IaaS infrastructure. Developed large-scale data processing pipelines in Apache Spark to support client data modelling.

### Manager

From August 2019 to March 2021

Led client project delivery, from Azure Cloud architecture and infrastructure automation, to back-end application development and data reporting. Increased the technical maturity of the team, running workshops and designing best practices for delivery on topics such as Git, advanced SQL, Apache Spark, testing and automation, cloud architecture.

## Cox Automotive (UK)

From November 2016 to August 2019

Data Engineering team lead, supporting Business Intelligence (BI) and Data Science (DS) teams with data and platforms to enable effective business analytics. Enabled principle of self-service analytics and ETL development for BI and DS teams through strategic use of tool and framework development, workshop and collaboration sessions, and interactive consultation (summarised in a talk given at the Spark Summit 2019 ([youtu.be/1WUIua-xjJA](https://youtu.be/1WUIua-xjJA))).

### Lead Data Engineer

From April 2018 to August 2019

Delivered data-driven products, supported BI and DS teams to productionise data and machine-learning models, and responsible for platform and data pipelines. Performed zero-downtime platform migration from Cloudera (IaaS) to Azure Databricks (PaaS). Core contributor to Waimak, our open-source Apache Spark library ([github.com/CoxAutomotiveDataSolutions/waimak](https://github.com/CoxAutomotiveDataSolutions/waimak)).

### Hadoop DevOps Engineer

From November 2016 to March 2018

Automated deployment of Cloudera platform, and migrated platform onto a secure platform (Kerberos, SSL, RBAC). Responsible for all automation of project and environment builds and deployment. Released Waimak, an open-source Apache Spark library developed by the team.

## Hortonworks (UK)

From December 2015 to November 2016

Professional services consultant providing Hadoop implementation, administration and developer services to banking-sector clients.

### Senior Consultant

## British Gas (UK)

From September 2013 to November 2015

Developer and Platform Engineer delivering ETL pipeline development, and infrastructure and platform automation to support large on-premises Hadoop clusters.

### Hadoop Platform Engineer

From January 2015 to November 2015

### Graduate Hadoop Software Developer

From May 2014 to January 2015

### Graduate SAP Developer

From September 2013 to May 2014

## EDUCATION

### MPhys, Masters in Computational Physics with Honors

University of Edinburgh

Masters Project: Radiative Transfer on GPUs using NVIDIA CUDA

Senior Honors Project: Lattice QCD on GPUs using NVIDIA CUDA

## CERTIFICATIONS

### Microsoft Certified: Azure Solutions Architect Expert

Microsoft

Valid from February 2022 to February 2023

### Microsoft Certified: Azure Data Engineer Associate

Microsoft

Valid from April 2020 to April 2023

### Microsoft Certified: Azure Developer Associate

Microsoft

Valid from February 2022 to February 2023

### Microsoft Certified: Azure Cosmos DB Developer Specialty

Microsoft

Valid from June 2022 to June 2023

### Microsoft Certified: DevOps Engineer Expert

Microsoft

Valid from January 2022 to January 2023

### Microsoft Certified: Azure Security Engineer Associate

Microsoft

Valid from September 2020 to September 2022

### Microsoft Certified: Azure Administrator Associate

Microsoft

Valid from January 2022 to January 2023

### AWS Certified Big Data – Specialty

Amazon Web Services (AWS)

Valid from January 2020 to January 2023

## TECHNICAL SKILLS

### Data Engineering

Apache Spark, SQL, Hive, and Databricks

### Cloud Engineering

Azure and AWS

### Infrastructure / Platform

Linux / Unix, SSL / Certificates, and Networking

### Software Engineering

Scala, Python, C#, TypeScript, and Functional Programming

### DevOps / Automation

Azure DevOps, Azure Pipelines, ARM / Bicep, Bash, Github, Github Actions, and Pulumi