Tim Quinn

I have worked for over 20 years as a data specialist in various capacities including Data Engineer, Data Scientist, Statistician, Quantitative Economist, and Project Manager with data and technology experience delivering projects in government and private sectors. I am a proven developer, project manager, and advisor. I have experience in the end-to-end delivery of data and technology; from gathering requirements and data architecture to data warehouse development. I am experienced in data visualization and analysis. I have deep experience in statistical analysis, machine learning, and data engineering.

At the Department of Agriculture, I play a key backend engineering role in the development of various program apps. This involves API design and development of Azure pipelines (ie Azure Data Factory), database design, schema, and processing of data. This work requires daily with T-SQL, Python, and R with ingestion, manipulation, machine learning and analysis, uplifting regulatory data in a range of SQL-based, R, Python, Json, XML, text etc, structured and unstructured. My designs are available for review and documenting using Figma, Mural, Miro, Lucid, and DevOps.

Further, I work daily with DevOps and GitHub and manage code, data, and analytical services for PROD, NONPROD and INFRADEV environments. I use Azure DevOps to perform CI/CD and run a regular code deployment session to merge all feature branches in the current Agile Sprint to the Live branch. I am responsible for maintenance of the ADF DevOps documentation, am responsible pipeline monitoring and I am also various other team’s technical point of contact.

As Consulting Data Scientist/Data Engineer at IP Australia I investigated the impact of COVID-19 on the agency’s workforce (for IP applications). This required broad and deep data extraction of large data sets using in the AWS S3 environment. A machine learning approach was undertaken using SQL and Python to develop forward program budget estimates. State and national estimates were evaluated against international estimates. I also developed a Python web-based extraction tool to rapidly extract data from national and international agencies. I worked extensively in data transformation, data analysis, schema interpretation and/or development as well as using SQL and Python scripts.

I have also worked on designing and building the Enterprise Data Warehouse in Azure SQL Server. I have extensively worked on optimisation of SQL scripts and pipelines (parallelism, auto scaling, automatic configuration, vulnerability reports etc.) and built a new framework that supports adding new data source items by just configuration changes. I work with other Data Engineers in a fast-paced Agile environment with regular brainstorming sessions and workshops. I also work with colleagues from different business departments (Finance, Customer Service, Marketing etc.) for gathering requirements, proof of concept presentations, ad hoc data analysis requests.

I have extensive experience with health and health-related analytical experience:

At the National Health Funding Body, I developed audit-style estimates for the Commonwealth Department of Health as well as for each of the states in SAS and SQL. I have also worked extensively in the analysis and visualization of data using Tableau. I used SQL for Data Transformation and designed an optimised ETL solution that tracks changes from the sources and performed batch processing. The data transfer from one layer of the data warehouse to another was performed using partition switching in/out for negligible down time. I also helped design a data compression strategy that optimised the data transformation process of a legacy data mart and reduce run times by 85%.

At PwC I delivered a Data Management Strategy, as both Program Lead and Technical Specialist, that targeted the MBS and PBS programs. The analysis provided the Department of Health with an understand of risks relating to its data, storage, technology and data handling, and ratings.

At Deloitte, I led the ‘Third Year Review of the Australian Government’s Indigenous Procurement Policy’ for PMC. I was responsible as delivery manager and principal data scientist. I managed a team of economists, data scientists, and accountants using a range of technologies (SAS, R, SQL, Python, Power BI) and assessing agency performance against policy. I mentored the team on analytical processes, develop and analyse a survey of businesses, and developed an alternative measure for compliance reporting. Engagement with the client was key to obtaining industry and grants data to be integrated for analysis. I met with my Deloitte partner and client director on findings and progress issues. I engaged with external stakeholders on data and systems. Prior to the IDC I advised my client on three additional areas found in our data analysis and that further examination was required to provide documented assurance and independence. Using this analysis, it was argued a shift from volumes-based reporting to volume and value-based reporting was required. Separate advice on data governance issues within the client’s Power BI processes was developed for the client and implemented.