

18th October 2021

To the hiring manager,

Hi, my name is Patrick, I'm a former government data analyst with great communication skills and a deep technical background. I am looking to move into the private sector to expand my skillset and learn data engineering best practices at the leading edge, while still contributing positively to society. Octopus sounds both super friendly and technologically advanced, so I'm really excited to submit my application for the Data Engineer role.

After graduating with degrees in maths and economics, I started work as a policy graduate – reflecting the fact that my real passion is for complexity and social outcomes over technology per se. However, when the pandemic broke out I realised that I could have a bigger impact applying my technical skills professionally, assisted by the very outcomes focus and collaborative communication style that made me an effective policy officer.

More specifically, in my role as a data analyst – later senior data analyst – for the Victorian government, I:

- Designed and deployed ETL pipelines in Python using AWS services (Lambda + StepFunctions) to create a "data lake" from a wide variety of sources (combination of APIs and traditional SQL databases)
- Built a Python-based dashboard, served on the web via EC2, to change-manage away from PowerBI
- Collaborated with a wide variety of stakeholders to understand their needs and translate them into data-enabled solutions which used the above two technologies
- Automated previously manual tasks through a combination of process improvement and Lambda functions
- Responded to ad-hoc data requests from executives and Ministers in a timely and comprehensive manner
- Deployed a basic CI/CD pipeline using Github Actions and AWS APIs/webhooks

With all of these I hit the ground running thanks to the fact that I was programming, installing Linux and generally being a big tech nerd long before I left school, let alone got a job. Although I may not have hands-on experience with some of the technologies (Spark, K8s, dbt) listed in the position description, I have heard about all of them, and my deep technical literacy means I'm confident I can pick them up very quickly.

Communication is my other core strength – in school and university I did a lot of debating, public speaking and workshop facilitation, as well as writing for the uni magazine. As a policy officer, I had to work with people from many different departments to articulate the government's stance clearly and concisely. This strong communication background has enabled me to be a more effective software developer, whether in gathering requirements from subject matter experts, presenting analytical findings to executives, or writing clear and engaging documentation.

Since leaving the public service, I have been working on personal projects to further my understanding of different web technologies, such as [trade-networks.xyz](#), which visualises international trade data for over 4000 standardised products thanks to Harvard DataVerse. To do this, I wrote a Javascript front-end and a Python back-end, linked them together by a REST API and hosted on AWS. Code for this project can be seen on Github [here](#).

I may not have oodles of professional experience as a developer, but I am a keen analytical thinker, a passionate technologist and a positive, committed team-mate. I'm really keen to get into the energy sector and get hands-on experience with advanced data tools, not to mention help a company committed to tackling climate change!

If you think I might be a good fit for the team, it would be great to get in touch and discuss the role further. You can find more details about my professional history, as well as my contact details, in the résumé enclosed.

Thank you,

Patrick McKinlay

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