Patrick McKinlay

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CAREER OBJECTIVE

My education in mathematics, computer science and economics has given me a broad capacity for thinking critically about complex issues – while a lifelong passion for computers has furnished me with the tools for action. I want to combine my technical and communication skills to help society tackle the "wicked problems" of the 21st century.

SKILLS

Programming Excellent Python (+ pandas), R and Matlab; experienced in SQL, Bash, Java and (vanilla) Javascript; basic C and Postgres experience. Very comfortable working in Linux terminals and server environments.

Data Engineering Experience designing and deploying multi-source ETL processes using AWS services (Lambda, StepFunctions, S3, API Gateway, Cloudwatch), interacting with external APIs to push/pull data and serve real-time notifications, as well as writing simple APIs to serve data and act as a simple CI/CD integration.

Written Communication Diverse writing background including cultural commentary and comic poetry for a uni magazine, economic and policy analyses for Cabinet submissions and briefings, through to maths research.

Stakeholder Engagement Confident running workshops, speaking in public, listening hard to user stories, asking questions to challenge assumptions and then sensibly articulating requirements/priorities for all audiences.

Languages Native English; conversational French and Arabic; rudimentary Polish and Russian.

EMPLOYMENT

DEPARTMENT OF JOBS, PRECINCTS AND REGIONS

Dec 2020 – Sep 2021	Senior Data Analyst, Working for Victoria
Apr 2020 – Dec 2020	Data Analyst, Working for Victoria

- Redeployed for COVID response to Working for Victoria, a $1B jobs program with a focus on digital-first.
- Established robust automated ETL processes, using AWS Lambda and StepFunctions to run queries on two traditional SQL databases, merge the data and make it available for reporting in a "data lake" on S3.
- Deployed a Python web app as a PowerBI replacement – dashboards for executive/Ministerial reporting, to visualise the data prepared above – written in Plotly Dash and served from an AWS EC2 instance.
- Worked closely with program managers as WFV expanded, translating business requirements into "full stack" solutions: combining APIs and AWS Lambda functions in the back-end, with the Python app in the front-end.
- Extended previous ETL processes to integrate with external systems (e.g. Salesforce) via API, perform sanity/data quality checks, then generate and send automated status reports to stakeholders' inboxes.
- Trained new developers – through code reviews and informal chats – in establishing good code practices, using Git and AWS, the principles of agile development and business analysis/requirements gathering.
- Fulfilled vague-but-urgent ad hoc data requests in a comprehensive and timely manner. Took initiative to implement new reporting tools/features in a fast-moving environment characterised by uncertainty.
- Successfully liaised with Commonwealth and Victorian government stakeholders to expand data sharing agreements and secure ongoing access to more granular, actionable employment data.

Feb 2019 – Apr 2020	Policy Officer, Suburban Development

- Supported DJPR Ministers through the provision of high-quality Cabinet submissions and portfolio briefs, including an initial economic impact analysis during the 2019-20 summer bushfires.
- As a VPS Graduate I had the opportunity to "rotate through" the Victorian Centre for Data Insights, which first impressed upon me how much I had underestimated my own ability to deliver value through data!

UNIVERSITY OF QUEENSLAND

2018   Tutor, Introduction to Calculus
- Taught a weekly class in first-year mathematics to a group of students from a wide range of backgrounds.
- Marked exams and assignments in a timely manner while still managing to give thoughtful feedback.

CHILDREN'S HEALTH QUEENSLAND

2016 - 2018   Ward Receptionist, Lady Cilento Children's Hospital
- Provided helpful and compassionate front-desk customer service to diverse families and young people.
- Participated in data cleaning and analysis during an audit of outpatient follow-up effectiveness.

2012 – 2014   Records Clerk, Royal Children's Hospital
- Championed the roll-out of a new integrated electronic medical records system throughout the hospital.
- Worked the night shift providing administrative support to multi-disciplinary Emergency Room teams.

EDUCATION

UNIVERSITY OF QUEENSLAND

2012 - 2013, 2016 – 2018   Bachelor of Science & Bachelor of Economics
- BSc.: majored in Applied Mathematics, with electives in Software Engineering and a particular interest in complex dynamical systems. Completed a final-year research project on evolutionary game theory.
- BEcon.: did not declare a major, started a student reading group to explore subjects outside the curriculum.
- Failed many of my first-year subjects, then worked full-time in 2014 and spent 2015 travelling the Silk Road from Egypt to China, before returning home to complete my studies with more success.

ST. JOSEPH'S COLLEGE, GREGORY TERRACE

2004 – 2011   Certificate of Education
- Graduated with an Overall Position of 3, equivalent to an ATAR of approximately 96—97.

REFEREES

Available upon request.