JACK MCKEW

Graduate Electrical Engineer & Data Scientist

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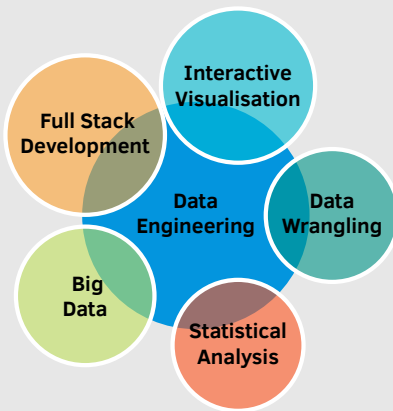
in /in/jack-mckew

○ JackMcKew

Skills ———————

Overview

- Interactive Visualisation
- Full Stack Development
- Data Engineering
- Data Wrangling
- Big Data
- Statistical Analysis

Tools

🧪 Pandas Numpy Gooey GeoPandas Sklearn NLTK

🗄 MySQL MongoDB

📈 Matplotlib Bokeh Plotly PowerBI QT5

⚙ git Travis Netlify

Programming Experience

Python • VBA • HTML & CSS

SQL • JavaScript • C & C++

R • PHP • Java

MongoDB • Bash • Node.js • Flutter

Interests ———————

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☰ Experience

Current	**Founder & Principal Consultant**	**Cyberlytica**

- Freelance digital services company specialising in data services.
- Services include data analytics, visualisation & automation.
- Full stack development, packaging and distribution of solutions.

Current	**Graduate Electrical Engineer (Since Jan 2019)**	**AECOM**
2017-2018	**Undergraduate Electrical Engineer**	

- Development of scientific computing software for environmental data sets.
- Saved approximately 900 working hours through automation.
- Pioneered and lead an Australia wide Microsoft Excel training session.
- Lighting design, lightning protection system design, PLC network design.
- Reticulation design, switchboard & switch room design.
- Construction support for defence & education projects and site inspections.
- Electrical drafting in AutoCAD and Revit.
- **Tools**: Python, git, VBA, AutoCAD, Revit, MySQL, Plotly, Bokeh, Pandas

2016 - 2018 **Undergraduate Electrical Engineer**	**Hunter H2O**

- PLC, SCADA & HMI design for water network infrastructure.
- Telemetry system & radio network design.
- Cable schedules & electrical protection schemes.
- **Tools**: Python, SCADAPack Workbench, ViewX, Unity Pro

2014 - 2018 **Timber Expert & Forklift Operator**	**Bunnings Warehouse**

- Used safety procedures to reduce risk within an unrestricted workzone.
- Detailed advice to customers on building materials & techniques.
- Customer service, cashier, in store loss prevention.

🎓 Education

2015 - 2018	**Bachelor of Electrical Engineering** with Honours	**University of Newcastle**
2014	**High School Certificate**	**Belmont High School**

📄 Previous Projects

Air Quality Toolkit — **AECOM Internal**

- Developed, packaged and distributed software to automate tasks reducing a week long task to seconds.
- Developed re-sampling tooling such that high frequency atmospheric data can be used in models.
- Built interactive data visualisation tooling to communicate data with clients.
- **Responsibilities**: Full stack development, packaging, distribution

Vulnerabilty Mapping Tool — **Hunter Joint Organisation**

- Automated GIS analysis to model vulnerability of communities to natural disasters, saving time and enhancing reproducibility.
- Compiled various sources of statistical and functional information to model vulnerability.
- Developed interactive visualisation to assist data driven decision making.
- **Responsibilities**: Statistical analysis, automated GIS, data visualisation

Mental Health Asset Condition Assessments — **Victoria Health**

- Worked a part of a multidisciplinary team to audit active mental health wards across Victoria to allow the government to make data driven decisions on maintenance and upgrades.
- **Responsibilities**: Building services (electrical & fire) audits, data automation

In Home Appliance Scheduler Using Home Area Network **Engineering Thesis**

- Designed, developed and constructed a home area network capable of monitoring and controlling appliances in accordance with an optimized schedule.
- **Responsibilities**: Embedded development, networking, databases, algorithm design, technical writing, data analysis, Android app development