

# JACK MCKEW

## Electrical Engineer & Data Scientist



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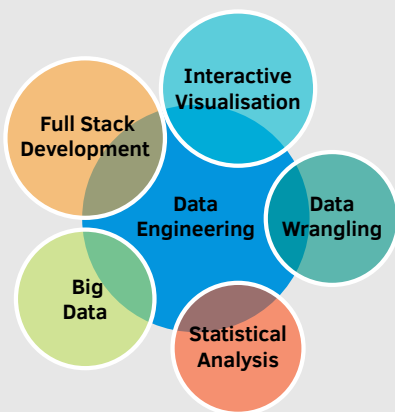
/in/jack-mckew



JackMcKew

## Skills

### Overview



### Tools



Pandas Numpy Gooley  
GeoPandas Sklearn NLTK



MySQL MongoDB



Matplotlib Bokeh  
Plotly PowerBI QT5



git Travis Netlify Github Actions

### Programming Experience

Python • VBA • HTML & CSS

SQL • JavaScript • C & C++

R • PHP • Java

MongoDB • Bash • Node.js • Flutter

## Interests



## 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 **Co-Organiser**

Hunter Data Analytics

- Monthly meetup in Newcastle, Australia for data enthusiasts!

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.
- **Tools:** Python, SCADAPack Workbench, ViewX, Unity Pro

## Education

2015 - 2018 **Bachelor of Electrical Engineering**  
with Honours

University of Newcastle

2014 **High School Certificate**

Belmont High School

## Open Source Projects

**Pandas\_Alive**

Creator

- Create stunning, animated visualisations with Pandas & Matplotlib as easy as calling 'df.plot\_animated()'
- Over 15,000 downloads & 120 stars in the first four weeks of release

**PyInstaller Action Windows /Linux**

Creator

- Github Action for building executables from Python code with PyInstaller

**data.newwwie.com**

Creator

- Website for Hunter Data Analytics community

## 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

**Vulnerability 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

**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