

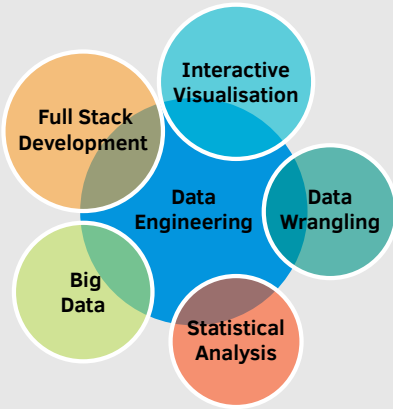
# JACK MCKEW

Electrical Engineer  
Software Developer  
Data Scientist

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## Skills

### Overview



### Tools

Pandas Numpy Gooley  
GeoPandas Sklearn NLTK

MySQL MongoDB

Matplotlib Bokeh  
Plotly PowerBI QT5

git TravisCI 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 meetups 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** **University of Newcastle**  
with Honours  
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 on Github in the first 4 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 visualisations 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