# **JACK MCKEW**

**Electrical Engineer** Software Developer **Data Scientist** 



0431 670 387



jackmckew.dev



jackmckew2@gmail.com



/in/jack-mckew



**JackMcKew** 



#### Tools

Data



Pandas Numpy Gooey GIS Sklearn NLTK NodeJS

**Statistical Analysis** 



MySQL MongoDB AWS Aurora



Matplotlib Bokeh Plotly PowerBI QT5 D3 QGIS



git TravisCI Netlify Github Actions AWS

### **Programming Experience**

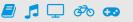
Python • SQL • HTML & CSS • Node.js

VBA • React • C & C++

R • PHP • Java

NoSQL • Bash • Flutter

Interests ———



## **Experience**

#### 2020 - Now Founder & Principal Consultant

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

#### 2020 - Now Senior Software Engineer

Deckee

Cyberlytica

- · Responsible for delivering full stack data analytics, visualisation and automation of waterway & app usage.
- Delivered key features for keeping boaters safe on the water including: alerts, map tile servers, log trips and log on log off.
- · Designed, developed and delivered a search and rescue platform solution with a successful real world trial in Western Australia.
- Pioneered new methodologies to capture and analyse user behaviour through phone sensors to guide government bodies to keep their communities informed on the water.
- Tools: Nodejs, React, Python, git, Docker, AWS, Cordova

#### 2022 - Now Senior Software Engineer

- · Responsible for integrating Arrowtail's explosive delivery capture app with on-site inventory management.
- Tools: Python, FastAPI, RabbitMQ, git, Docker, Azure

### 2017 - 2020 Electrical Engineer

**AECOM** 

- 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

### **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 on Github in the first 4 weeks of release.

#### **PyInstaller Action Windows /Linux**

• Github Action for building executables from Python code with PyInstaller.

# 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

#### 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