# Jack McKew

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# **WORK HISTORY**

Current | Graduate Electrical Engineer at AECOM (since 2017)

Undergraduate from 2017-2018

Experience in retail, commercial, industrial, water and defence projects

Projects involved lighting design, reticulation design, switchboard/switchroom design, communication network design, lightning protection system design and site inspections

2016-2018 | Undergraduate Electrical Engineer at Hunter H2O

Casual working on PLC Programming, PLC Systems, Radio Networks, SCADA Systems,

Cable Schedules, Electrical Protection Schemes

2014-2018 | Timber Expert AND Forklift Operator at Bunnings

Casual as a timber expert detailing advice to customers on building and operating fork-

lifts in a high risk environment.

Retail experience as a cashier, people greeter and in store loss prevention security.

2015 | Electrician at Downer EDI

Work experience as an industrial electrician, contracted by Hunter H2O to install switch-

boards at various treatment plant sites.

### **EDUCATION**

2014 High School Certificate, Belmont High School

2015 - Current Bachelor of Electrical Engineering (Honours), University of Newcastle

# **CERTIFICATES**

MARCH 2017 Cardiopulmonary Resusitation (HLTAID001)

Low Voltage Rescue UETTDRRF06B

Telemetry Certified Expert Scheider Electric

NOVEMBER 2015 High Risk Work License (Forklift Trucks) HRW726355

COMPUTER SKILLS

Basic Knowledge: Unity Pro, Isagraf, SCADAPack Workbench, Viewx, VBA, Php,

mysql, html, javascript , Linux, ubuntu, System Verilog, Vijeo Designer, AGI-32, PowerCAD, Unity, AR, VR. C++

Intermediate Knowledge: PYTHON, NUMPY, PANDAS, C, Visio, Excel, Word, PowerPoint

# PROJECT HISTORY

DEPARTMENT OF DEFENCE 2017-Current

#### Williamtown RAAF Base

Electrical and communications design review, lighting review, site inspections, lightning protection system review and conduit capacity assessments

University of Newcastle 2018-Current

# Honeysuckle Campus Building 1A

Electrical and communications design, lighting design, cable tray routing, co-ordinating with other trades, lightning protection system design

AFCOM 2018-Current

## **Data Analysis Automation Tools**

Developed software in Python to automate workflows for simulation software saving 10 hours per use, analysis with minute interval data for up to 20 years, distributed software to multiple users, maintained documentation

DEPARTMENT OF DEFENCE 2017-2018

#### New Air Combat Capabilities

Communications design review, fibre budget calculations and site inspections

ORICA AMMONIUM PLANT 2017-2018

#### **Cooling Tower Commissioning**

Commissioning of new cooling tower at Orica Kooragang

STOCKLAND 2017-2018

#### **Greenhills Extension**

Lighting design review and shop drawing reviews

University of Newcastle 2017-2018

# Chemistry Building Refurbishment

Lighting design review and shop drawing reviews

**HUNTER WATER 2017-2018** 

#### Disinfection Optimisation Strategy

Analysis of existing site electrical infrastructure. Concept design of new switchboards, cable routes and drive arrangement, control I/O and SCADA I/O. Feasibility assessment for site upgrades.

**HUNTER WATER 2017-2018** 

#### Dungog Electrical Upgrade

Analysis of existing site electrical infrastructure. Concept design of new switchboards, cable routes and drive arrangement for site redundancy between switchboards.

WATERNSW 2016-2017

#### **iSMART**

Design and development of PLC systems, HMI systems, SCADA systems and telemetry systems. Development of sites such as dams, weirs, regulators and pumping stations.

FAT and SAT of Site, PLC, SCADA and HMI functionality.

WARREN SHIRE COUNCIL 2016-2017

#### SCADA Upgrade

Upgrade from Citect SCADA to ClearSCADA. Design and development of SCADA and telemetry system. Designed to function with existing PLC and HMI infrastructure.