

# Jack McKew

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## WORK HISTORY

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Current	<b>Graduate Electrical Engineer at AECOM (since Jan 2019)</b> Undergraduate from 2017-2018 Working in a multidisciplinary team to produce electrical designs in retail, commercial, industrial, water, defence projects & develop automated software solutions. Projects involved lighting design, reticulation design, switchboard/switchroom design, communication network design, lightning protection system design, PLC network design, electrical drafting and site inspections.
2016-2018	<b>Undergraduate Electrical Engineer at Hunter H2O</b> Casual working on PLC programming, PLC systems, radio networks, SCADA systems, cable schedules and electrical protection schemes.
2014-2018	<b>Timber Expert &amp; Forklift Operator at BUNNINGS</b> Casual as a timber expert detailing advice to customers on building materials & techniques and operating forklifts in a high risk environment. Retail experience as a cashier, people greeter and in store loss prevention security.
2015	<b>Electrician at DOWNER EDI</b> Work experience as an industrial electrician, contracted by Hunter H2O to install switchboards at various water treatment plants.

## EDUCATION

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2015-2018	<b>Bachelor of Electrical Engineering (Honours), University of Newcastle</b>
2014	<b>High School Certificate, Belmont High School</b>

## CERTIFICATES

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AUGUST 2019	<b>Mental Health First Aider</b>
JULY 2019	<b>ICS/SCADA Cyber Security Udemy</b>
MARCH 2017	<b>Cardiopulmonary Resuscitation (HLTAID001)</b> <b>Low Voltage Rescue UETDRRF06B</b> <b>Telemetry Certified Expert Scheider Electric</b>
NOVEMBER 2015	<b>High Risk Work License (Forklift Trucks) HRW726355</b>

## COMPUTER SKILLS

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Basic Knowledge: UNITY PRO, ISAGRAF, SCADAPACK WORKBENCH, VIEWX, VBA, PHP, SQL, HTML, JAVASCRIPT, LINUX, UBUNTU, SYSTEM VERILOG, VIJEO DESIGNER, AGI-32, POWERCAD, UNITY, AR, VR, C++, AUTOCAD, WORDPRESS, REVIT

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

## LANGUAGES

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English: NATIVE LANGUAGE  
Italian: INTERMEDIATE (READING, WRITING); BASIC (SPEAKING)

## PROJECT HISTORY

HUNTER WATER 2018-Current	<b>Lemon Tree Passage &amp; Tanilba Bay PLC Upgrade</b> Analysis of existing site PLC infrastructure & process documentation, development of cutover plans to maintain plant uptime, PLC rack layouts, panel general arrangements and electrical drafting.
DEPARTMENT OF DEFENCE 2017-Current	<b>Williamstown RAAF Base</b> Electrical and communications design review, lighting review, site inspections, lightning protection system review and conduit capacity assessments.
UNIVERSITY OF NEWCASTLE 2018-Current	<b>Honeysuckle Campus Building 1A</b> Electrical and communications design, lighting design, cable tray routing, co-ordination with other disciplines, Revit drafting and lightning protection system design.
AECOM 2018-Current	<b>Data Analysis Automation Tools</b> 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	<b>New Air Combat Capabilities</b> Communications design review, fibre budget calculations and site inspections.
ORICA AMMONIUM PLANT 2017-2018	<b>Cooling Tower Commissioning</b> Commissioning of new cooling tower at Orica Kooragang.
STOCKLAND 2017-2018	<b>Greenhills Extension</b> Lighting design review and shop drawing reviews.
UNIVERSITY OF NEWCASTLE 2017-2018	<b>Chemistry Building Refurbishment</b> Lighting design review and shop drawing reviews.
HUNTER WATER 2017-2018	<b>Disinfection Optimisation Strategy</b> 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	<b>Dungog Electrical Upgrade</b> Analysis of existing site electrical infrastructure. Concept design of new switchboards, cable routes and drive arrangement for site redundancy between switchboards.
WATERNSW 2016-2017	<b>iSMART</b> 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	<b>SCADA Upgrade</b> Upgrade from Citect SCADA to ClearSCADA. Design and development of SCADA and telemetry system. Designed to function with existing PLC and HMI infrastructure.