

# Tom Mahoney

## Resume

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**Software Portfolio:** <https://github.com/toru173>

### Employment History:

**June 2021 –  
November 2021:**

#### **Information Systems and Technology Career Experience at Apple Pty. Ltd.**

- Responsibilities:
- Ported an iOS proof-of-concept software project to macOS
  - Performed an InfoSec analysis of the existing project code
  - Reverse-engineered a Bluetooth Low Energy product
  - Developed a novel technique to locate a user based on Wi-Fi signal strength trilateration and probabilistic algorithms
  - Collaborated with teams across APAC, EMEA and AMR including presenting to Senior Director level team members

**July 2015 –  
December 2022:**

#### **Genius at Apple Pty. Ltd.**

- Responsibilities:
- Perform hardware repairs on desktop, portable and mobile Devices such as iPhone, iPad and iPod
  - Worked with internal support teams to research and deploy solutions to new and emerging client issues
  - Managed installation and update images for client devices

**October 2017 –  
September 2018:**

#### **IS&T Champion at Apple Pty. Ltd.**

- Responsibilities:
- Maintained on-premises equipment; resolved local IT issues
  - Deployed and maintained Apple internal devices, including mobile devices, computers and proprietary repair equipment
  - Deployed and maintained ancillary equipment such as network switches, routers and printers

**October 2009 – July 2015:** **Specialist at Apple Pty. Ltd.**

- Responsibilities:
- Diagnose and repair software and hardware issues in client mobile devices such as iPhone, iPad and iPod.
  - Qualified and managed SMB client accounts
  - Drove forecast metrics
  - Sales, cash and stock management for a retail environment

## Education and Certifications:

- **Master of Information Technology (Cybersecurity and Networks)**, *Queensland University of Technology*, GPA 6.7 of 7.0
- **Bachelor of Engineering (Mechatronics)**, *The University of Queensland*, graduated 2010
- Apple Certified Macintosh Technician (ACMT)
- Apple Certified iOS Technician (ACiT)

## Key Academic Projects:

**August –  
November 2019:**

### **Cybersecurity Live Fire Exercise**

Highlights:

- Developed a working knowledge of ESXi
- In a team of four, built a working model of an SMB/Enterprise network including services such as DHCP, DNS, LDAP, Email, Web Services, VNC, VPN, IDS, SNMP etc
- Developed hands-on experience with infrastructure routing protocols, such as BGP and OSPF
- Hardened all virtual devices against attack; withstood intrusion during the live-fire component of the exercise
- Successfully compromised two other competing networks during the live-fire component

**February –  
June 2019:**

### **Reverse Engineering Project**

Highlights:

- Starting with no documentation, successfully commissioned three pieces of industrial control equipment using Modbus and similar protocols for QUT's SCADA Laboratory
- Gained experience with multiple virtual machine products and disk image formats
- Researched packet injection attacks targeting the embedded Modbus controllers of industrial control equipment
- Documented the configuration and use of the equipment, and the procedure required to recommission the lab

**October –  
November 2017:**

### **Multi-day Capture the Flag Event**

Highlights:

- Developed working knowledge of SQL syntax and usage
- Identified five of the seven total flags found by the team
- Weaponised CVE code to successfully execute a privilege escalation attack
- Developed skills in penetration testing using Metasploit, nmap and other common tools
- Leveraged macOS as a viable penetration testing platform