

Dean Payne

e-Portfolio



Student ID: s3967670

Email: s3967670@student.rmit.edu.au

Github Repository: <https://github.com/dpayne28?tab=repositories>

Github Page: <https://dpayne28.github.io/deanpayne/>

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About Me:

I was born in Pietermaritzburg, South Africa and migrated to Western Australia in 2008 with my family. I graduated from Lesmurdie Senior High School in 2014 and after moving from job to job trying to find something that could keep me both engaged and interested, I finally landed a job for a small IT company, thus began my career into information technology.

I thoroughly enjoy outdoor activities, am part of a regular social basketball team, amateur football (soccer, the real football) squad and fill in for a mixed netball team. I have two dogs, Nico (Border Collie x Husky) and Oscar (border Collie)

When I do find myself with free time, I indulge in PC games with my friends, League of Legends, Apex Legends and I am currently trying to complete Sifu which I am enjoying but finding extremely difficult because of my play style. We have also recently gotten really into board and card games Bang, Dominion and Coup to name a few.

Profile:

[Myers-Briggs test](#)

[learning styles test](#)

[Big 5 Personalities test](#)

The result from the three tests above indicate that I have a very big personality which leans toward slightly chaotic. My learning style shows that I am a visual learner and need to see how things are done in order for me to understand them. Due to the aforementioned working in a team may come easy to me however I will need to make sure that my personality does not stop others from having input. I will need to have patience when it comes to planning and discussion in order to make sure the project can be completed with minimal problems.

Interest in Information Technology:

My passion in IT began once I had finished school and started working in the field. I enjoyed coming to work everyday to solve new problem, develop new skills and help clients resolve issues or implement systems to make their jobs easier and ultimately more efficient. Once I had gained as much knowledge as I could I took the next step in joining RMIT to further the understanding of IT I have. I chose RMIT because they offered online learning which fit in really well with my lifestyle, nationally recognised university and there core values align with my own. Through my enrolment in RMIT I hope to complete my bachelor's degree and take the next step in my career path.

Ideal Job:

Job Title: Senior IT Systems Administrator

Job advertisement: [Senior IT Systems Administrator Job in Perth - SEEK.pdf](#)

Job Description:

In this position I will be undertaking management for system maintenance and project delivery. This will mean planning system upgrades to make sure hardware and software remain update, attending the main office and traveling to a mine site to assist users with day to day issues and leading, supporting and developing ICT support officer.

Skill Requirements:

- Understanding of IT systems and applications and implementing them for longevity and efficiency
- Looking after all aspects of server hardware and software (Windows, Hyper-V, VMware)
- Assisting end users with resolve any issues they have in a timely manner
- Identify areas where IT can improve the efficiency of work place procedures.
- Maintaining backups and fail-safes ensuing minimal, if any to systems and operations.

Skills Possessed:

- 7 years IT experience as a System Engineer working with the following:
 - o Windows Server platforms

- Hyper-V, VMware and other virtualisation software
- Microsoft Office 365 and SharePoint
- Networking and Firewalls: Draytek, Fortigate and Meraki (UTM/VPN)
- Backup Systems: Veeam and Shadow Protect
- 3CX Phone Systems

Career Pathway to Ideal Job:

Through completing my Bachelors in Information Technology I hope to be able to secure a role in my current company as a senior technician while continuing to further my experience in the IT field.

Project Ideas:

Overview:

With technology advancing at an exponential rate and showing no signs of slowing down, the issue of connecting people especially in remote locations is becoming more and more paramount. Ensuring everyone has access to the internet means that teachers in remote communities can get the best information for students, business can expand and explore more locations for resources in mining industries, remote communities can connect with loved ones hundreds if not thousands of kilometres away. I propose a 4G Mobile internet solutions with battery backup to resolve issues with getting internet access to remote Australia. This will not only get them connected to the internet at more reasonable speeds as well as have the opportunity to increase mobile coverage in more isolated areas.

Motivation:

The Digital Data Inquiry found that 14.4 kilobit per second (kbps) was the minimum speed required for effective use of e-mail and web-browsing. However, for access to website with intricate designs and for those conducting business over the web, a speed of 28.8 kbps would be more effective. Approximately 15 per cent of Australians living in rural and remote Australia do not have access to the Internet at the speed of 14.4 kbps, (compared to 5 per cent in urban and provincial areas), and 40 per cent do not have transmission rates of 28.8 kbps. I believe by implementing this infrastructure in rural and regional homes or business we can combat this issue and get those numbers down to a more acceptable statistic.

Description:

By getting a 4G site survey of the area where the solution is to be installed, we can setup a directional or omnidirectional antenna to point to the best tower to facilitate the connection. We can then configure a 4G mobile modem router with SIM card to receive and transfer the information from the tower to a network switch ready for distribution to client devices or wireless access point for Wi-Fi networks. This will all be powered by an inline uninterrupted power supply (UPS) to avoid power surges damaging equipment. The UPS can then be powered either by solar with a monitoring system or connected directly to mains power if available for a more reliable connection. Depending on location all devices will be stored in a small server rack, other they can be stored in a weatherproof container with enough ventilation to protect from overheating.

Tools and Technologies:

To get the project up and running the following will be required:

- 1x Directional/Omni-directional antenna
- 1x 4G Modem Router with SIM
- 1x Battery backup

Optional

- 1x Secondary antenna
- 1x Cel-Fi

- 1x 4G antenna
- 1x Solar Panel
- 1x Solar Monitoring System.

Skills Required:

To undertake this task an understanding of networking will be required to setup and configure the router. Telephony will be required to configure the SIM to connect to the tower and some electrical knowledge will be needed if connecting the solar panel and monitoring system

Outcome:

If successful, the project will look at reducing the number of regional and remote communities that do not have access to the internet. This could also be implemented in business and mine sites allowing them to connect to resources.

References:

Parliament of Australia 2001-02, A Digital Divide in Rural and Regional Australia, viewed 18 June 2022,

https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/CIB/cib0102/02CIB01#:~:text=Approximately%2015%20per%20cent%20of,transmission%20rates%20of%2028.8%20kbps.