

JOANNA MOY

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PROFILE

A Computer Science graduate with a strong foundation in data analysis to help businesses solve problems. With experiences in **cyber security, data science, and business information systems**, I excel at analysing data and am passionate about using technology to improve business requirements and create meaningful solutions.

EDUCATION

Monash University

Dec 2024

BCompSc - Data Science with Business Information Systems and Cyber Security minors

- **Relevant Coursework:** Data Analytics, Data Visualisation, Computational Modelling and Simulation, Modelling for Data Analysis, Databases, Business Information Analysis, Systems Development, Real-time Enterprise Systems

SKILLS & TECHNICAL TOOLS

Programming Languages: Python, Java, JavaScript, R

Data Science & Analytics: NumPy, Pandas, Matplotlib, SciPy, Power BI, Tableau, Vega-lite, Microsoft Excel

Web Development: ReactJS, NodeJS, NextJS, HTML & CSS, MongoDB, Figma

Databases: SQL (Oracle), Microsoft Access

Tools & Technologies: Git, Linux, SAP S/4 HANA

TECHNICAL PROJECTS

The Weathered Game of Oz – Python, Jupyter, NumPy, Matplotlib | [\[link\]](#)

- Modelled urbanisation and deforestation effects on climate and economy via Markov Chains and Monte Carlo methods.
- Applied game theory to evaluate optimal regional strategies for policy and resource planning.

Phishing Website Classification – R | [\[link\]](#)

- Built and compared seven machine learning models to classify phishing vs. legitimate websites.
- Achieved **~72% accuracy and 0.76 AUC** with ensemble and neural network models.
- Conducted feature importance and ROC analysis to identify key URL, domain, and content-based indicators driving phishing detection.

COVID-19 Prosocial Behaviour Analysis – R | [\[link\]](#)

- Analysed 40K+ global survey records to explore drivers of prosocial behaviour during COVID-19.
- Built regression and k-means clustering models to compare behavioural patterns across countries.
- Generated insights linking cultural and socioeconomic factors to community resilience.

NLP and Network Analysis – R | [\[link\]](#)

- Built and compared clustering and network models to uncover thematic relationships across documents.
- Conducted document, token, and bipartite network analysis to identify key term linkages and topic overlap.
- Applied data visualisation and feature engineering to highlight word centrality and document connectivity.

Faire: Accessible LMS for Students with Dyslexia – JavaScript, ReactJS, NextJS | [\[demo\]](#) | [\[link\]](#)

- Collaborated in a team of 4 to build an LMS that personalises learning experiences for dyslexic students.
- Led product design and supported full-stack development.
- Won **1st place** for innovation, technical execution, and real-world impact in the WIT Future in Focus Hackathon 2025.

WORK EXPERIENCES

Cyber Security Intern, World-link Communications

Nov 2023 – Feb 2024

- Worked on enhancing the software framework that monitors and analyses the cyber security of maritime operations in the ShipSecure department.
- Conducted risk analysis using a given dataset, facilitating strategic enhancements in software security protocols.

Cyber Security Project Intern, MYCISO

Jun 2023 – July 2023

- Devised a functional algorithm for aligning 55 SMEs with suitable cyber security frameworks.
- Conducted research on PCI DSSv4.0 and COBIT 2019 frameworks, informing the development of an algorithmic framework selector based on company-specific data.

EXTRACURRICULARS

IT Volunteer, Planetshakers Church

Sep 2025 – Nov 2025

- Support weekly livestreams across YouTube, Facebook, and Vimeo, ensuring smooth delivery for multiple services.
- Collected and analysed engagement data to track livestream reach and audience trends.
- Created Excel-based visualisations to help better understand online engagement.

Project Volunteer & Environmental Advocate, JUST ONE Tree

Jun 2024 – July 2024

- Collaborated with a team of 6 to develop engagement strategies to boost student participation and sustainable donations.
- Managed outreach with sustainability clubs and administrative bodies, launching a pilot at the University of Warwick.
- Assisted in project planning, business risk assessment, and digital campaign development.

- Responsible for planning and organising over 8+ large-scale student events for over 700 participants.

LANGUAGES

English – Native; **Mandarin Chinese** – Fluent; **Japanese** – Conversational; **Malay** – Upper Intermediate