

LONG HOA CHUNG

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PROFESSIONAL SUMMARY

PhD-qualified Life Science Scientist and Data Analyst with 10+ years' experience transforming complex datasets into actionable insights across healthcare, finance, and AI. Skilled in Python, SQL, R, and machine learning, with hands-on expertise in predictive modelling, anomaly detection, and AI model validation. Known for strong project management, stakeholder engagement, and the ability to deliver reliable results under strict governance and compliance frameworks. Recognised for turning complex problems into clear solutions that protect communities, support business strategy, and enhance decision-making. Now seeking to apply advanced analytics and project skills to financial crime surveillance and risk management at Westpac.

CORE SKILLS

Data Science & Machine Learning

- Predictive modelling, anomaly detection, Natural Language Processing, generative AI, computer vision
- Skilled in Python (pandas, scikit-learn, NumPy, Matplotlib), SQL, R, Jupyter

Analytics & Reporting

- KPI dashboards, EDA, scenario analysis, performance monitoring
- Tools: Power BI, Tableau-style dashboards, Excel

Project & Program Management

- Led cross-functional research and analytics projects from initiation to completion
- Skilled in planning, resource management, compliance reporting, risk management

Stakeholder Engagement

- Experience liaising with executives, regulators, clients, and collaborators
- Strong communicator, able to simplify technical findings for non-technical audiences

Governance & Compliance

- Delivered projects under ethics, privacy, and regulatory frameworks
- Experienced in managing sensitive datasets with accuracy and integrity

RELEVANT EXPERIENCE

AI & Data Science Expert | Outlier AI (Remote, NSW) | Mar 2025 – Present

- Trained and validated machine learning and generative AI models, including anomaly detection workflows for STEM datasets.
- Designed and refined prompts to extract accurate, high-quality outputs, improving AI reliability.
- Strengthened model evaluation frameworks to align with fairness, accuracy, and governance standards.

Officer-in-Charge | Australian Electoral Commission (Sydney, NSW) | May 2025

- Directed polling site operations, ensuring compliance with national electoral legislation.
- Managed staff scheduling, logistics, and stakeholder communications under high-pressure conditions.
- Delivered accurate and timely reporting, showcasing leadership, integrity, and accountability.

Postdoctoral Research Scientist | Victor Chang Cardiac Research Institute (Sydney) | Jun 2023 – Dec 2024

- Built predictive analytics pipelines in Python/R to uncover trends in complex biomedical datasets.
- Improved project efficiency with reproducible workflows and data quality controls.
- Produced clear reports and dashboards, improving decision-making for research leaders.

Research Officer | Centenary Institute (Sydney) | Mar 2019 – May 2023

- Managed multi-year projects analysing large-scale datasets on human liver cancer and diabetes.
- Applied anomaly detection and machine learning to uncover hidden molecular patterns.
- Coordinated project deliverables, mentored junior staff, and published multiple peer-reviewed articles.

Administrative & Settlement Officer | Lincoln Legal (Sydney) | Mar 2017 – Nov 2017

- Managed client documentation and confidential property settlements with accuracy and compliance focus.

Tutor & Demonstrator | UNSW (Sydney) | 2014 – 2019

- Delivered tutorials and practical classes, supporting hundreds of students and ensuring smooth delivery of coursework.

SELECTED PROJECTS

- **AI Model Optimisation (2025):** Designed prompts and evaluation rubrics to guide AI models towards accurate and ethical responses, strengthening reliability in high-stakes applications.
- **Financial & Retail Analytics (2025):** Conducted EDA on retail, stock, and housing datasets; built predictive models for house pricing and customer churn; created dashboards for business insights.
- **Healthcare Data Pipelines (2019–2024):** Led projects translating clinical research (e.g., liver cancer, diabetes, prostate cancer) into reproducible data workflows and dashboards, enhancing visibility for stakeholders and informing health outcomes.
- **Electoral Field Operations (2025):** Managed end-to-end polling site operations, delivering compliant reporting and seamless execution under pressure.

EDUCATION & CERTIFICATIONS

IBM – Coursera (2025)

- Data Science Specialisation (Python, SQL, Data Visualisation, ML, Capstone Projects)
- Generative AI: Elevate Your Data Science Career
- Business Intelligence Essentials for Finance Analysts (Power BI Edition)
- Google Advanced Data Analytics

PhD, Molecular Biology & Biochemistry | UNSW (2014–2017)

BSc (Hons I), Chemistry & Biochemistry | UNSW (2010–2013)

PUBLICATIONS & RECOGNITION

- **Publications:** 5 first/co-first author papers, 1 review article, 9 collaborative papers, 1 book chapter (Full list: ORCID 0000-0003-1834-5747)
- **Awards:** Australian Postgraduate Award, UNSW David Walsh Memorial Prize, Top-up Research Scholarship for Publication Output

REFEREES

Available upon request