**JESSE CHEN**

[jessechen959@gmail.com](mailto:jessechen959@gmail.com)  [Portfolio Website](https://jesse-dev543-io.vercel.app/) 0426188943 [LinkedIn](http://www.linkedin.com/in/jesse-chen28)

**Executive Summary**

* Dual-qualified with Master of Information Technology and Bachelor of Business Management
* Live portfolio at [portfolio](https://jesse-dev543-io.vercel.app/) showcasing full stack capabilities including **React native, JavaScript, SQL, no-SQL, Cloud and AI-powered features** with real-time chatbot functionality and responsive UI/UX design
* Completing **AWS Solutions Architect** certification with hands-on experience building cloud-native applications, implementing **CI/CD pipelines**, designing **scalable backend architectures**, and deploying production applications on AWS
* Proven ability to develop end-to-end solutions from database design and **RESTful APIs** to modern frontend frameworks, with focus on performance optimization, clean code practices, and seamless user experiences
* Active Toastmasters member with strong **communication skills** for translating technical requirements into user stories and collaborating effectively across cross-functional teams including designers, product managers, and stakeholders
* Hold full working rights in Australia

**Skills**

* **Programming & Development:** Python, JavaScript, Java, Unit/integration/end-to-end testing
* **Cloud & Infrastructure:** AWS (EC2, S3, Lambda, RDS, CloudFormation, API Gateway, IAM)
* **DevOps & Delivery:** CI/CD pipelines, GitHub version control, Shell scripting, Build tools and automation
* **AI & Machine Learning:** Agentic AI concepts, large language models (LLMs), Data analytics and machine learning implementation
* **Database & Query Languages**: SQL (MySQL, PostgreSQL), NoSQL databases, Data extraction and transformation, Database optimization
* **Development Practices:** Agile methodologies (Kanban), Cross-functional team collaboration, Continuous improvement, Code management platforms
* **Monitoring & Operations:** Application monitoring and alerting concepts, Log aggregation understanding

**Work Experience**

**Front-end developer, JobPin**

Brisbane, QLD | *Oct 2022 – Feb 2023*

* Built **full-stack web applications** using **JavaScript, HTML, and MySQL** that improved client user experience and system efficiency by 90%
* Developed an AI-powered portfolio website builder featuring a **RAG-based** chatbot using **gpt3.5 and BM25 algorithms** with **IP rate limiting**, plus an **automated email system** with EmailJS integration and form validation
* Implemented **CI/CD pipeline** using **GitHub Actions** with automated testing, **Super Linter** code quality checks, and **continuous deployment**, while managing software projects through **version control** and meeting critical project deadlines
* Delivered **technical documentation** and support across diverse software systems, translating complex technical concepts for non-technical stakeholders and bridging **communication** between engineering and business teams

**Tutor, HD Education**  
Remote | *Jan 2024 – Present*

* Tutored 10+ bachelor students in IT courses including Python, JavaScript, and database management, simplifying complex programming concepts and earning 100% positive feedback
* Achieved a 100% student pass rate through personalized support, code reviews, and clear explanations of algorithms and data structure
* Optimised scheduling with a time-block system using Google Calendar integration to deliver consistent, high-quality tutoring, even during peak exam periods with 2+ sessions per week

**Education**

|  |  |  |  |
| --- | --- | --- | --- |
| |  |  | | --- | --- | | Master of Information Technology |  |   The University of Queensland | *July 2023 – July 2025*  *Cloud infrastructure and application development, Python, Database systems (relational and NoSQL), DevOps practices and CI/CD pipelines, Machine learning and data analytics* |  |

Bachelor of Business Management

The University of Queensland | *Feb 2020 – June 2023*

*Financial services industry knowledge, Client-focused solution design, Agile development practices and cross-functional collaboration, Process automation and business intelligence, Project management and delivery excellence*

**Projects**

**WingWatch - Interactive Birdwatching Platform |** JavaScript, API Integration, Performance Optimization, DOM Manipulation  
<https://jesse-dev543-io.vercel.app/wingwatch_process.html> ; <https://jessechen543.github.io/wingwatch_portfolio>

* Performance Optimization: Implemented Euclidean distance-based filtering algorithm for geospatial data queries, reducing website latency by 80% while improving UX through contextually relevant content delivery based on user location
* API Migration & Cost Optimization: Successfully migrated from paid API service to free alternative solution, achieving 100% cost reduction while maintaining feature parity and system reliability
* Frontend Development: Built dynamic search completion system with real-time DOM manipulation, interactive UI components for enhanced user experience, flow-based navigation architecture for improved engagement

**Queensland Go Card Database System |** SQL Server, Database Design, Performance Optimization  
Enterprise-level database architecture for public transport validation systems:

* **Database Architecture:** Advanced SQL programming, stored procedures, custom functions, indexing strategies, triggers for real-time processing
* **Performance Optimization:** Data integrity constraints, query optimization, high-availability solutions
* **System Integration:** Comprehensive validation systems supporting large-scale public transport infrastructure

**Tennis Player Handedness Prediction Model |** Python, Machine Learning, TensorFlow, Data Science  
End-to-end machine learning solution achieving 95-98% accuracy:

* **Model Development:** Conditional Generative Adversarial Networks (CGAN), Random Forest algorithms, deep learning neural networks
* **Data Pipeline:** Data preprocessing, feature engineering, statistical analysis for optimal performance
* **MLOps Implementation:** Model training, cross-validation, performance evaluation for production-ready solutions

**Extracurricular Activities**

**Career Fair Volunteer** | JR Academy Event

* **Customer Service & Support**: Provided frontline assistance to job seekers by answering inquiries and directing candidates to appropriate resources, reducing workload for Deloitte recruitment team
* **Quality Assurance Testing**: Conducted user acceptance testing and provided detailed feedback on Deloitte's interactive hiring game, contributing to user experience improvements and game refinement
* **Stakeholder Communication**: Served as liaison between event organizers and Deloitte team, ensuring seamless coordination and clear communication channels through proactive information sharing and problem resolution

**Data Analytics Competition Finalist** | BANA (Brisbane Analytics Network Association)

* **Statistical Analysis & Data Science**: Achieved finalist status in heart attack prediction competition using R Studio, applying advanced statistical modelling, data visualization, regression analysis, and predictive analytics techniques
* **Business Intelligence & Decision Making**: Translated complex data findings into actionable business recommendations for healthcare stakeholders, demonstrating ability to convert technical insights into strategic solutions
* **Presentation & Communication Skills**: Delivered compelling data-driven presentations to judge, effectively communicating complex analytical results to both technical and non-technical audiences through clear visualization and storytelling

**Awards & Certifications**

* Dean's Commendation for Academic Excellence (2022) - Overall score higher than 85%

*(Referee on request)*