

MARCUS STUART DICKSON

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Backend and Infrastructure Engineer with production experience in high-frequency trading (HFT) environments and clinical DevOps. Specialised in Python-based automation, containerised deployments, and secure API architecture utilising mTLS. Demonstrated impact in streamlining incident response and managing mission-critical infrastructure within high-throughput settings.

EDUCATION

Curtin University Bachelor of Computing Software Engineering Major CWA: 82.87	Bentley, WA Feb 2023 - Nov 2025
Guildford Grammar School Western Australian Certificate of Education ATAR: 94.80	Guildford, WA Jan 2017 - Oct 2022

RELEVANT EXPERIENCE

Citadel Securities <i>Site Reliability Engineer Intern</i>	Sydney, NSW Nov. 2025 - Feb. 2026
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- Developed a custom Python pipeline converting 1,800+ Slack incident threads into deterministic metrics via automated Jira integration.
- Architected a modular "playbook-based" framework to abstract telemetry and messaging integrations for decoupled SRE tooling.
- Deployed the greenfield pipeline into production, reducing each member of the SRE team's operational overhead by 10 minutes daily.

Curtin School of Population Health <i>Junior DevOps/Research Software Engineer (Clinical Software Deployment)</i>	Nedlands, WA Jan. 2025 - Nov. 2025
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- Enabled live clinical use of R Shiny applications by developing and deploying a containerised ShinyProxy system from scratch using Docker Compose, MySQL, R, and Python.
- Extended the lifespan of a legacy biomedical suite by 3 years as measured by continued vendor support through a carefully planned upgrade, mitigating data loss risks critical to longitudinal research.
- Automated secure real-time ingestion of take-home eye pressure measurement data by building a Python backend with mutual TLS and certificate verification, ensuring API compliance and seamless updates.

Enveng Group <i>DevOps Engineer Intern</i>	Clarkson, WA Dec. 2024 - Jan. 2025
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- Streamlined build and deployment processes by designing and implementing CI/CD pipelines with GitHub Actions and Docker containers.
- Improved software reliability and test coverage through implementing unit tests in CUnit, contributing to long-term code maintainability.
- Enhanced team coordination and visibility by managing tasks via GitHub Projects and facilitating stakeholder communication through Kanban workflows.

Deloitte Australia <i>Oracle Team Vacationer</i>	Perth, WA Nov. 2024 - Dec. 2024
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- Recognised as 1st place winner in the 2024 Deloitte T&T VacHack CTF competition (department-wide).
- Delivered successful client data integration pipelines by configuring Oracle Fusion Data Intelligence (FDI) to connect OTBI with Oracle ADW.
- Improved financial reporting accuracy and speed by implementing out-of-the-box analytics solutions within Oracle ADW.

PROJECTS

QDecide Developed a full-stack investment platform using classical and quantum ML for personalised portfolio optimisation as part of a Deloitte-sponsored capstone project. The system integrates user data and real-time stock information, and feeds it into ML models for personalised forecasting and recommendations. The stack includes React, Python, Docker, MySQL, TensorFlow, and Qiskit.	Link to Github Repo
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SKILLS

Proficient in: Python, R, ShinyProxy, Docker, MySQL
Comfortable with: Java, C#, Kotlin, HTML, CSS, JavaScript, TypeScript, Firebase, Jetpack Compose
Other skills: Project Management, Agile Development, Git, Github Projects, Github Actions

AWARDS AND CERTIFICATES

VacHack 2024

Deloitte

A capture-the-flag (CTF) competition for Deloitte Vacationers run across the country each year.

OCI AI 2024 Foundations Associate Certificate

Oracle

A course designed to introduce learners to the fundamental concepts of artificial intelligence (AI) and machine learning (ML), with a specific focus on the practical application of these technologies within the Oracle Cloud Infrastructure.

Year 12 2022 Subject Prizes

Guildford Grammar School

Subject prizes were rewarded to students for being the top-ranked student within their class. I received three ATAR subject prizes in Politics and Law, Psychology and Philosophy.