

# TAI TRAN

Brisbane, Australia

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## PROFILE

Software Developer who focuses on building robust systems that solve real business problems. Strong ability to understand requirements, form a clear product vision, and deliver solutions that maximise impact. Experienced in rapidly shipping applications for web and desktop, with a focus on maintainability and user experience. Committed to learning fast and taking ownership of results. Based in Brisbane; open to international relocation.

## CORE COMPETENCIES

- Languages & Technologies: Python, Java, C#, SQL (PostgreSQL), HTML, CSS, JavaScript.
- Key Areas: Desktop App Development, Web Development, Database Management, User Interface Design, Cybersecurity.
- Professional Practices: Organised Code Structure, Automated Testing, Technical Documentation, Project Management, Logging & Observability.
- Tools: Version Control (Git), Stripe, Cloudflare, Design Tools (Figma), Documentation Generators.
- Domains: Financial Trading Systems, Educational Apps, Web Platforms, Security Automation.

## PROFESSIONAL EXPERIENCE

### Lead Software Engineer (Contract) | Lewy (Agentic Security Hardening)

Nov 2025 - Present | Sydney, New South Wales, Australia (Remote)

#### Major Duties:

- **Platform Development:** Designed and built a complete security automation platform from scratch, managing the project from concept to launch.
- **Automated Security Workflow:** Created a unified system that combines results from multiple security tools into one clear report, making it easier for teams to track and fix issues.
- **Smart Risk Detection:** Implemented a targeted scanning approach that focuses on high-risk areas, saving time compared to broad, generic scans.
- **AI-Powered Prioritisation:** Integrated AI to automatically group issues and identify the most critical risks, reducing manual review time for developers.
- **Guided Fix Process:** Built a workflow that helps developers safely fix security issues with automated suggestions.
- **Compliance & Tracking:** Developed tools to track all security findings and decisions, providing a clear audit trail for compliance.

#### Successes:

- **Improved Efficiency:** Drastically reduced 'noise' so developers can focus on the security risks that actually matter.
- **Data Privacy:** Designed the AI integration to be secure, ensuring sensitive internal system details remain protected.
- **Scalable Design:** Built a flexible architecture that allows new security features to be added easily without disrupting operations.
- **High-Quality Delivery:** Delivered a stable, well-organised codebase that is easy to maintain and update.

## Software Engineer | Hooper Music Studio (Contract)

Nov 2025 - Dec 2025 | Brisbane, Queensland, Australia (On-site)

### Major Duties:

- **Product Development:** Led the end-to-end development of a comprehensive business management platform for music education, handling booking, invoicing, and student records.
- **Business Process Automation:** Streamlined operations by automating semester scheduling, lesson reminders, and financial reporting, significantly reducing manual administrative work.
- **Financial Systems:** Implemented a robust accounting and invoicing system that manages payments, tracks revenue, and generates tax-compliant documentation automatically.
- **User Experience:** Designed a modern, accessible interface for teachers, students, and parents, improving engagement and ease of use.
- **Security & Reliability:** Built a secure platform with role-based access for different user types, ensuring data privacy and operational stability.

### Successes:

- **Business Automation:** Reduced administrative workload by automating lesson reminders, invoice delivery, and teacher payroll calculations.
- **UX/UI Improvements:** Delivered a mobile-responsive frontend with an intuitive design to improve parent and student experience.
- **Reliability:** Maintained a stable and secure codebase, ensuring consistent uptime and data integrity.
- **Feature Integration:** Added a digital Book Store and Instrument Catalogue fully linked to invoicing, streamlining point-of-sale operations.

## Lead Software Engineer (Contract) | Valgo Trading

Aug 2025 - Dec 2025 | Brisbane, Queensland, Australia (Hybrid)

### Major Duties:

- **System Design:** Architected a sophisticated trading platform that combines real-time market analysis with automated execution capabilities.
- **AI Integration:** Integrated advanced AI agents to analyse market trends and provide transparent decision support, mimicking expert reasoning.
- **High-Performance Analytics:** Developed high-speed data visualisation tools to present complex market information clearly and instantly.
- **Operational Efficiency:** Engineered the system for continuous 24/5 operation, enabling fully automated trading across global markets.
- **Risk Management:** Built comprehensive risk controls and performance monitoring to ensure safe and reliable automated trading.

### Successes:

- **End-to-End Autonomy:** Achieved a fully autonomous trading loop that interprets market data, generates rationales, and executes trades precisely.
- **Performance Optimisation:** Achieved high-performance rendering of large datasets, enabling real-time decision making.
- **Reliability:** Solved complex integration challenges to ensure seamless communication between data feeds, AI models, and user interfaces.
- **Observability:** Established a comprehensive monitoring system to track decisions and performance from data intake to trade execution.

## KEY PROJECTS

### Date Range Picker - User Interface Component

- Developed a calendar tool that allows users to easily select dates and date ranges within applications.
- Designed the component to be flexible and reusable, so it can be plugged into different software projects.
- Wrote comprehensive documentation and automated tests to ensure reliability and ease of use for other developers.
- Packaged the tool professionally for easy installation and version control.

### Socslingo - Language Learning Application

- Created a desktop application for learning Japanese, featuring interactive lessons, games, and progress tracking.

- Designed a user-friendly interface with animations and a 'life' system to keep learning engaging.
- Managed user accounts and lesson content efficiently, ensuring a smooth experience for students.
- Organised the code to handle complex logic while keeping the application fast and responsive.

#### **Seek Music - Concert Ticketing Website**

- Built a complete website for browsing and booking concert tickets.
- Implemented secure user accounts for both event organisers and attendees.
- Designed a clear search and booking process, ensuring a smooth experience for users buying tickets.
- Analysed the project afterwards to identify improvements in security and performance.

### **EDUCATION**

Bachelor of Information Technology - Major: Computer Science; Second Major: Computational and Simulation Science

Queensland University of Technology (QUT), Brisbane

Coursework projects include Seek Music and Socslingo, delivered as major assessment pieces.

### **WRITING & COMMUNICATION**

- “Valgo: A Modern Trading System” - A detailed overview of how a complex trading platform is built, from data processing to automated execution.
- “Improving AI Development with Documentation” - An article explaining how structured documentation helps AI tools assist developers more effectively.
- “Valgo Development Update” - A report on the progress, design choices, and lessons learned while building a trading application.
- Project Reflections - Detailed reviews of past projects, analysing what worked well and how to improve future software development.

### **REFERENCES**

References available upon request; reference page will be provided.