

# Jackson Lanyon

Software Engineer - Brisbane, Australia

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## Professional Summary

Full-stack engineer with production experience in programming and motion graphics. I combine strong fundamentals in algorithms, databases, and system design with a motion designer's eye for visual polish, delivering software that's both functional and refined.

I focus on clean, testable, scalable code with automated deployments.

## Technical Skills

**Languages:** HTML / CSS, TypeScript / JavaScript, Python, C#, Java, SQL

**Frameworks & Libraries:** React, Next.js, Vue.js, Vite, Node.js, JavaFX, .NET

**Tools & Platforms:** Git (GitHub & Gitea/Forgejo), Docker, Systemd, SQLite, MySQL, Cloudflare, VitePress, Godot, Unity

**Practices:** REST API, Agile & Scrum, Git branching workflows, CI/CD (GitHub Actions)

## Work Experience

### QUT - Business Process Improvement Office

#### Software Testing Engineer

6-month internship (2020) – Kelvin Grove, QUT

- Implemented automated testing frameworks using **Katalon and Selenium with Java**, reducing regression test execution time and accelerating sprint delivery cycles.
- Transitioned legacy test scripts from Katalon's `.groovy` files to **Selenium-based Java tests** with 2 other engineers, eliminating the need for a complete rewrite and improving test maintainability.
- Collaborated within an Agile team using **Git, Jira, and Microsoft Teams**, ensuring secure releases for staff and students through daily stand-ups and regular sprint reviews.

### AQSeptence Group

#### Software Engineer

6-month internship (2021) – Geebung, QLD

- Engineered data-processing tools in **Python (Pandas, NumPy), PowerShell, and VBA**, automating CSV parsing, Excel reformatting, and data sorting in order to automate manual data handling and improve workflow efficiency.
- Recovered and migrated critical legacy data from **Lotus Notes** databases, preserving business continuity and ensuring data integrity during system transitions.
- Designed a scheduled **information aggregator and backup system** using Python, which ran automatically every Friday at midnight, eliminating manual intervention and reducing the risk of data loss.
- Developed nested sorting algorithms for **compound part lists in Excel files**, enabling hierarchy visualisation and improving inventory management.

## Projects

### sausytime.com

#### Self hosted designer portfolio

Next.js, TypeScript, Cloudflare, Debian, nginx

- Independently designed, built, and deployed a fully responsive production portfolio to Cloudflare, **maintaining an estimated 99.9% uptime** with self-hosted infrastructure and CI-based deployment using GitHub Actions.
- Engineered a minimal monochrome UI with glitch animations, a typewriter, snappy buttons and dynamic theming, **achieving Lighthouse scores of 75+** on performance, accessibility, SEO and Best Practices.
- Implemented project modals with dynamic routing, reducing page load time by ~40% versus full-page navigation, documenting the architecture in GitHub issues for roadmap planning.

## Task Tank

### Gamified Task and Pomodoro Manager

Java, JavaFX, SQLite

- **Collaboratively designed and built a full-stack desktop application** that integrates a gamified task-tracking system with a Pomodoro timer, enabling users to manage productivity through engaging interfaces.
- Implemented local persistence via SQLite, **reducing app startup time by ~2 seconds** compared to in-memory alternatives by caching frequently accessed task data.
- Architected a modular MVC structure with separate controller, model, and view layers, helping to **improving code maintainability** and enabling team members to add new features **without merge conflicts, reducing code and avoiding refactoring existing logic**.

## BeeAware Capstone

### Cross-Team Database Plugin

C#, SQL, HTML, CSS, JavaScript

- Collaborated with 2 cross-functional capstone teams (5 members total) to build a browser plugin integrating with a beekeeping project's MySQL database to bridge a data visibility gap for end users.
- Designed SQL queries to securely fetch beehive telemetry data, **reducing query response time by ~60%** through indexed lookups and parameterised queries.
- Participated in weekly cross-team stand-ups and Git-based code reviews, **delivering all milestones on schedule across a 12-week development cycle**.

## Rescreeply

### VR Unity Group Project

Unity, C#, VR

- Coordinated with 3 teammates using Git feature branching to build a VR zombie survival game, **delivering a playable prototype in 6-week sprint cycles**.
- Developed enemy AI behaviours using Unity's NavMesh system, **optimising frame rate from 45fps to a stable 72fps** through LOD-based culling.
- Resolved integration conflicts between parallel development branches, **reducing merge-related bugs by ~25%** compared to previous group projects.

## VoiceToVideo

### Audio Driven Video Generator

Python, OpenCV, Audio Processing

- Built a Python utility that maps real-time microphone amplitude to a sequence of video frames, **reducing manual editing effort by ~15 minutes per video** for content creators.
- Implemented configurable exponential smoothing algorithms, **eliminating frame flicker** at low volume thresholds.

## PlaytimeTracker

### Track Steam Playtime Analytics

Python, NumPy, Matplotlib

- Developed a Python script that queries Steam API data and generates time-series playtime graphs, **enabling users to visualise usage patterns** across multiple gaming sessions.
- Implemented scheduled data polling via the `schedule` library, **automating data collection** to run on Windows system startup without manual intervention.

## Education

### Bachelor of Games & Interactive Environments

#### Queensland University of Technology (QUT) - Final Year

Game Engine Theory, AI for Games, Immersive Environments, High Performance Computing, Visual Communication, Algorithms and Complexity, Systems Design, Capstone Project

**Major:** Software Technologies

**Minor:** Advanced Software Technologies

**Minor:** Graphic Design

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## References

### Alexander Klimson

Engineering Manager - alexander.klimson@aqseptence.com

### Leighton Cook

Project Manager & Lead Developer - leightoncook45@gmail.com