Yijiang Luo 罗熠桨

Cloud & Full-Stack Software Developer / Final-year IT student at Monash

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Summary

IT student at Monash University (Software Development), graduating in December 2026. I build software that runs in the cloud and like the problems between code and infrastructure: making a service scale, stay up under load and cost less. I've designed a multi-cloud serverless ML platform on AWS and GCP, deployed an autoscaled API on GKE, and built full-stack web apps and native iOS and Android apps. Looking for software, cloud and IT consulting roles in Melbourne.

Education

Monash University · Bachelor of Information Technology, Software Development — 2025 – Dec 2026

- **WAM 76.9 (Distinction), GPA 3.3 / 4.0.** Every graded unit at Distinction or above, all core IT (FIT) units.
- High Distinction: Computer Systems, Networks and Security; Data Visualisation; Software Engineering: Architecture and Design.
- Results pending: Cloud Computing, iOS App Development, Industry Experience Studio 2.
- Showcased work at the Monash Industry Experience Expo 2026, State Library Victoria.

University of Sydney · Bachelor of Engineering (Honours), prior study — 2022 – 2023

- Studied programming, object-oriented programming, data structures and algorithms, and databases (High Distinction in Programming, OOP and Data & Information Management) before transferring to Monash.

Projects

steaL · Multi-platform game-deals app (Ongoing) — Aug 2026 – now

Solo · github.com/JohnWes7/steaL

- Built a SwiftUI iOS app (Liquid Glass) that finds Steam sales, compares prices across stores via IsThereAnyDeal and the Steam Store API, and loads each section independently so one slow request never blocks the page.
- AI buy-or-wait advice from any OpenAI-compatible provider (key kept in the Keychain); Firebase-synced wishlist with price-drop and release notifications; VoiceOver, Dynamic Type, 7 regions, English and Chinese.
- Built a serverless sale-events API on AWS (API Gateway, Lambda, S3, EventBridge Scheduler, all in Terraform). An LLM extracts sale dates from Steam, Epic, itch.io and GOG; code checks every result and a bad batch keeps the last good data. A tool-calling agent covers GOG and must quote its source. Only 3 files touch AWS.
- In progress: a native Android app (Jetpack Compose, Material 3) and a shared Kotlin Multiplatform core (Ktor, Kermit), so both platforms run one implementation of the logic.

`Swift / SwiftUI / SwiftData / Kotlin / Compose / KMP / Python / OpenAPI 3.1 / Lambda / Terraform / pytest + moto`

Agencia Change Engine · Industry project, Monash — 2026 S2

Developer in a student team, for an industry client · in final deployment · source is private

- Built the team's hardest feature on a change-management platform: real-time collaborative editing with Yjs and Quill, plus field-level live sync between planning tools.
- Ran a token-secured WebSocket relay on a Linux server with Node.js, PM2 and Caddy.
- Added Docker and a GitLab CI pipeline, improved the 8-step onboarding flow and wrote UAT scenarios. Shown at the Monash Industry Experience Expo 2026.

`CakePHP 5 / Yjs / Quill / WebSocket / Node.js / PM2 / Caddy / Docker / GitLab CI`

Aussie EcoGuard · Multi-cloud wildlife detection platform — Oct – Nov 2026

Technical lead, team of 3 · github.com/JohnWes7/aussie-ecoguard-multicloud-platform

- Designed the architecture for tagging camera-trap photos and videos by species: AWS for web, API, storage and data; GCP Cloud Run for ML inference; everything in Terraform with remote state and locking.
- Built the event-driven pipeline: presigned S3 uploads with SHA-256 dedupe, EventBridge, SQS with a dead-letter queue, Lambda, Cloud Run and DynamoDB.
- Compared 10 detection pipelines on a hand-labelled test set, then shipped MegaDetector, SpeciesNet and CLIP, with video support.
- Cognito on every API; AWS calls GCP with machine-to-machine OAuth checked against JWKS, so GCP never holds AWS credentials. Unit tests with pytest and moto, plus end-to-end smoke tests.

`S3 / EventBridge / SQS / Lambda / DynamoDB / Cognito / Cloud Run / Terraform / Python`

SmartPark · Autoscaled parking-detection API on GCP — 2026 S2

Solo · github.com/monash-yluo/smartpark-api

- Deployed a FastAPI + YOLO API on GKE that scales from 1 to 8 pods with load (CPU-based HPA), with a camera simulator on Cloud Run.
- Model weights load from Cloud Storage through an initContainer, so switching models is a ConfigMap change, not an image rebuild.
- Two-level cache (in-pod TTL plus shared Redis) that serves stale data while refreshing, with a cross-pod lock so only one pod re-runs inference; YOLO runs in a thread pool so it never blocks the event loop.
- Load-tested with Locust at 1, 2, 4 and 8 pods and wrote a benchmark report.

`Python / FastAPI / YOLO / GKE / HPA / Cloud Run / Cloud Storage / Redis / Firestore / Locust`

RespiraCare · COPD patient-monitoring web app — Mar – May 2026

Main developer in a student team, ~60% of commits

- Designed the database and set up the CakePHP 5 project from scratch: authentication, password hashing, Cloudflare Turnstile.
- Role-based access across patient, doctor and admin portals, returning 404 for records a user doesn't own.
- Appointment booking with HTML email notifications, password reset by time-limited 6-digit code, and clinical validation rules.

`PHP 8.2 / CakePHP 5 / MySQL / Tailwind CSS / ApexCharts`

Also

- **Data visualisation** (2025): an interactive Vega-Lite story of Australia's energy mix and emissions, and a Tableau travel dashboard built with LOD expressions.
- **FallEndless** (2021): a Unity / C# survival game built in 3 days by a team of 2 for Ludum Dare 48.

Skills

Cloud & infra	AWS (Lambda, API Gateway, S3, DynamoDB, SQS, EventBridge, Cognito) · GCP (GKE, Cloud Run, Cloud Storage, Firestore) · Terraform · Docker · Kubernetes
Languages	Python · Swift · Kotlin · PHP · JavaScript · C# · HTML/CSS
Mobile	SwiftUI · SwiftData · Jetpack Compose · Material 3 · Kotlin Multiplatform · Ktor
Back end & web	FastAPI · Node.js · CakePHP · WebSocket · REST / OpenAPI · Tailwind CSS
Data	MySQL · DynamoDB · Cloud Firestore · Redis · pandas · Vega-Lite · Tableau
Tools	Git · GitHub · GitLab CI · pytest + moto · Locust · Xcode · Gradle · LLM apps (structured extraction, tool-calling agents)

Other

Languages	Mandarin (native) · English (professional working proficiency)
Work rights	Will apply for a post-study work visa after graduating.
Availability	Melbourne; on-site, hybrid or remote.