Angus Bosmans

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SUMMARY

Software engineer focused on **performance-critical systems**, **market-making style algorithms**, and **automation at scale**. Built an algorithmic exchange serving ~**1M users** and engineered lightweight clients/bots in **C++**, **Python** and **TypeScript** with network protocol-level integration.

EDUCATION

Monash University   Melbourne, Australia
Bachelor of Mechatronics Engineering (Honours) & Arts   2021 – 2026
- Engineering Dean's Honour List (2021, 2022)

EXPERIENCE

Founder / Software Engineer 🔗   Sep 2022 – Dec 2023
OP.Market | *C++, Python, TypeScript, Networking/Protocols, IDA Pro, Fiddler, ReClassEx*
- Built an **algorithmically priced trading exchange** for Rocket League items, scaling to **900,000+ users** and **20,000+ daily transactions**.
- Reverse-engineered Rocket League trade protocol and built a lightweight client that emits network messages directly; reduced memory footprint to 10 MB and p95 latency from 300ms to 12ms via parallelism and lower overhead.
- Implemented market-making pricing with inventory risk controls using volume, signals, and fundamental inputs to drive industry-leading price discovery.

Founder / Software Engineer 🔗   Oct 2023 – Present
BloxBoom | *TypeScript, Lua, Rust, Node.js, PostgreSQL, Redis, Sentry, CI/CD, Grafana*
- Built and operated an automated digital-goods marketplace **internationalised into 8 languages** with instant automated delivery of **100,000+ annual purchases** across 18 Roblox games.
- Designed caches, trade queues, and reservation locks to keep purchase flows fast while preserving correctness.
- Shipped reliable deployments with Jenkins & GitHub Actions; reduced deploy cycle to ~**2 minutes**.

Software Engineer 🔗   Aug 2018 – Sep 2019
RLSwaps | *TypeScript, Node.js, React, Next.js, MySQL, WebSockets, NGINX, Linux*
- Developed an automated trading bot & marketplace in a real-time virtual economy; implemented pricing/spread logic for **40,000 unique assets** with inventory risk controls.
- Implemented monitoring and alerts in Grafana to detect latency spikes, execution errors, and abnormal volume.

Incoming Software Engineer | TikTok   Start 2026

PROJECTS

Neural Cellular Automata 🔗   Nov 2024 – Nov 2025
Monash DeepNeuron – HPC Branch | *WebGPU Shader Language, Python, PyTorch, Parallel Computing*
- Developed GPU-accelerated neural cellular automata simulations & rendering pipelines to create performant interactive demos on low-power mobile devices.
- Optimised memory layout and convolution to improve frame rate to 240+ FPS; used profiling to reduce latency by 96% per step (53ms to 2ms).

Growth Garden – 1st Place UNIHACK 2025 🔗   Mar 2025
UNIHACK | *TypeScript, React, Three.js, WebGL, Jenkins, GitHub Actions*
- Created an immersive 3D habit-building game with custom shaders that turns personal goals into progress via AI-driven task suggestions and interactive world growth.
- Led a team of 6 in a 48-hour hackathon to deliver an MVP that won **1st Place among 750+ entrants.**

Open Source Projects 🔗   Jul 2018 - Present
- express-zod-safe 🔗: type-safe request validation middleware for Express.js (**10,000+ weekly downloads**).
- @angablue/exe 🔗: portable binary build system for JavaScript/TypeScript (**70+ stars** on GitHub).
- MIPS Assembly Formatter 🔗: the go-to assembly formatter for VS Code (**36,000+ installs**, 5 ⭐ rating).
- Autonomous Shopping Robot 🔗: robot capable of collecting a shopping list via computer vision; EKF, projections, object recognition and A* path planning.