Aaron M. **Myburgh**

SOFTWARE ENGINEER · MECHANICAL ENGINEER

Cape Town, South Africa

XXXXXXXX | XXXXXXXXXX | aaronmyburgh.com | github.com/amyburgh | linkedin.com/in/aaronmyburgh

Skills

Languages:	JavaScript, C/C++, SQL, HTML, CSS
Frameworks:	Express, React, Next.js
Tools:	Git, PostgreSQL, Docker, Vim, AWS (Certified), TailwindCSS, Three.js

Projects

BubbleStock (In Progress)
Developed a containerized full-stack stock-tracking web app featuring a React frontend and Express/PostgreSQL backend.
- Implemented JWT authentication, RESTful APIs, and Docker-based deployment.
- Integrating dynamic gain visualization using Three.js for interactive 3D bubble graphs.

Fractal Generator
Built a graphical fractal rendering engine in C with real-time interactive zoom and pan.
- Utilized multithreading via band-based partitioning for parallel rendering to optimize performance.
- Leveraged miniLibX (OpenGL-based) for custom graphics output and Apple's AppKit for input handling.

Experience

Software Engineer (Contract) | *Remote*
Outlier.ai | *Jun 2025 - Aug 2025*
- Evaluated AI-generated frontend, backend and full-stack codebases for AI research teams.
- Delivered structured feedback reports to improve code quality and model-generated logic.

Commercial Property Manager | *Eastern Cape, South Africa*
Private Portfolio | *Jan 2020 - Dec 2024*
- Oversaw leasing operations and tenant relations across multiple commercial properties.
- Drove cost-saving property upgrades and ensured regulatory compliance (fire, insurance).

Mechanical Design Engineer | *Port Elizabeth, South Africa*
NMU Formula Student Racing Team (Design, Build and Race) | *Jun 2013 - Nov 2014*
- Designed and produced aerodynamic composite components, reducing weight by up to 30%.
- Led onboarding of new members after nomination based on technical and leadership performance.

Education

42 Silicon Valley | *San Francisco Bay, CA*
Software Engineering Student | *Apr 2018 - Sep 2019*
- Completed project-based bootcamp curriculum emphasizing algorithms, networking, and systems-level programming.

De Anza College | *Cupertino, CA*
Supplementary Coursework while Attending 42 | *Sep 2018 - Jun 2019*
- C++, Unix/ Linux, Ethical Hacking, Digital Forensics.

NMU (Nelson Mandela University) | *Port Elizabeth, South Africa*
Bachelor of Technology (BTech), Mechanical Engineering | *Graduated Dec 2016*
- Developed a first-principles understanding of mechanical systems, thermodynamics, and fluid dynamics.
- Became proficient in CAD modeling and Finite Element Analysis (FEA) for simulation-driven design testing and optimization.