

# SEAN PARKINSON

 [SeanParkinson.net](https://SeanParkinson.net) |  [Portfolio@SeanParkinson.net](mailto:Portfolio@SeanParkinson.net) | ➤ Sydney

## SUMMARY

Lead Software Engineer managing client relationships, scoping projects, and delivering full-stack software solutions. Experienced in requirements gathering, project planning, budgeting, and leading engineering teams through end-to-end delivery. Skilled across backend systems (Python, .NET), frontend applications (React, Sveltekit), and systems-level optimisation, with a practical engineering approach to solving complex problems.

## TECHNICAL SKILLS

**Languages:** C/C++, CSharp/Java, TypeScript/JavaScript, HTML/CSS, SQL, Python, Swift  
**Frameworks:** .NET, React, Node.js, WordPress, Sveltekit, Supabase / Firebase, StrAPI, Payload CMS  
**Developer Tools:** Git, Jira, Docker, VS Code, Visual Studio, IntelliJ, Eclipse, Clouflare, Vercel Hosting, Xcode  
**Libraries:** SciPy/NumPy, C/C++ Standard Libs, Raylib

## EXPERIENCE

### Industrial Sciences Group

*Lead Software Engineer*

*Software Engineer*

Lead engineering role involving software development, client relationships and team management.

July 2025 – Present

Nov. 2025 – Present

July 2025 – Nov. 2025

#### *Advanced Ground-to-Ground RF Propagator*

- Led a team of 3 in designing and developing a Python-based RF propagator, coordinating research and project execution.
- Resolved environmental loss factors through extensive literature review and modelling of terrain and atmospheric effects.
- Automated SNR analysis for transmitter/receiver pairs, eliminating the need for manual field testing and accelerating RF network planning.

#### *Health Infrastructure Asset Bidding Assistant*

- Owned end-to-end development of a Python and Svelte tool that uses functional relationships and data analytic techniques for predicting asset requirements and supporting infrastructure planning.
- Designed and implemented automated calculations for HVAC, fire, electrical, and hydraulic assets according to Australian Standards (AS), AusHFG guidelines and collaborations with SMEs.
- Automated predictions of over 140 assets, eliminating manual workload and error rates by a significant margin.

Additional Job Experience available on request

## PROJECTS

### **TeamTrack** | .NET, React, SQL

- Developed a full-stack time-tracking SaaS for contractors and managers using .NET 8, SQL Server, and React, implementing role-based authentication.
- Designed and implemented RESTful APIs and secure database models to track work hours, lunch breaks, and task-level activity, supporting analytics for management dashboards.
- Deployed the application to Azure with CI/CD pipelines, demonstrating enterprise-ready DevOps practices and scalable cloud architecture.

### **3D Voxel Rendering Engine** | Java, OpenGL

- Rewriting a modern voxel engine for a legacy version of minecraft, implementing modern rendering techniques to legacy code.
- Showcases deep problem solving and analytical ability by employing techniques like binary greedy meshing, per-fragment lighting and bit-bashing.
- Optimised meshing and significantly reduce memory footprint, leading to a 2x uplift in performance whilst introducing modern lighting.

### **Portfolio Site** | Sveltekit, TS/JS, HTML/CSS, Cloudflare [SeanParkinson.net](https://SeanParkinson.net)

- Reflected an understanding of modern JavaScript Web frameworks by developing a full-stack Web application utilising Cloudflare Workers for edge content delivery and Sveltekit for full-stack development.

- Utilises Svelte's Runes to provide reactivity and to hydrate the DOM, and ensured correct implementation of WAI-ARIA.
- Implemented Framer Motion for dynamic page animations, enhancing user engagement, and leveraged serverless architecture with Cloudflare Workers for faster page load.

## EDUCATION

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### **University of Technology, Sydney**

*Bachelor of Computer Science (Honours),  
Sub-Major in Information Security*

Sydney, NSW  
*Feb. 2024 – Expected Nov 2026  
Major in Enterprise Software Development,*

### **University of New South Wales**

*Bachelor of Electrical Engineering (Honours) /*

Sydney, NSW  
*Feb. 2023 – Nov 2023  
Science (Computer Science) (Incomplete)*

## REFEREES

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References released upon request