

Tessa Power

Software Engineer

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EDUCATION

Bachelor of Science, Computer Science Major

Victoria University of Wellington, New Zealand (*July 2022 — June 2024*)

Massey University, New Zealand (*July 2020 — June 2022*)

Bachelor of Science, Mechatronics Major

Baden-Württemberg State University, Germany (*2017 — 2018*)

PROFESSIONAL EXPERIENCE

Software Engineer I

Shuttlerock Limited (May 2021 — Jan 2022)

Remote member on a team of 10 full-stack web developers. Improved and evolved in-house software used to collaborate with clients on projects.

Developer Intern

Tatou Limited (Jun 2020 — Dec 2020)

Early-stage startup developing AgTech tracking software. Revitalized Ruby-on-Rails and React test suites, implemented UI testing enhancements, and authored user documentation.

Product Associate

YR Live Limited (Oct 2019 — Mar 2020)

Mature global tech startup building customized software. Developed product roadmap, refined core products, introduced Agile/Scrum processes.

PROJECTS

3D Editable Terrain Generation

www.github.com/tessapower/3d-terrain

3D terrain simulation built with C++, GLSL, OpenGL and ImGui. Users move around a procedurally generated scene of trees, clouds, and terrain, and edit the terrain mesh in real-time using the mouse. To keep the program performant, the level of detail is adjusted through mesh simplification using voxelification.

DX11 Rendering Engine

www.github.com/tessapower/DXEngine

Hardware-accelerated rendering engine built on DirectX 11 and Win32 to support custom shader development. Developed with C and C++.

2D Game Engine

www.github.com/tessapower/TEngine

Based on ECS architecture, with support for rendering, audio, basic 2D physics, and collision-overlap detection. Created on own initiative to support building Java games for a game development course at Massey University.

SKILLS

- **Programming Languages:** C, C++, GLSL, Java, Python, JavaScript
- **Tools:** Visual Studio, JetBrains IDEs, Git, GitHub, Jira, Slack, Trello
- **Frameworks/Libraries:** Win32, DX11, OpenGL, OpenCV, GTest, UML
- **Languages:** English (native), German (professional level)
- **Certifications:** Certified Scrum Product Owner (Scrum Alliance Inc.), ISTQB Foundation Level Tester (International Software Testing Qualifications Board)