



THEON TEO

SOFTWARE ENGINEER

PROFILE

Experienced software engineer with 2+ years in software development. Enjoys exploring the different aspects of web and app development, trying out various frameworks, languages or APIs and discovering ways to increase interactivity.

Currently a Computer Science Undergraduate in DigiPen Singapore, pursuing software engineering with a focus in web and software development.

Currently looking for internship from **May 2022 to November 2022**.

CONTACTS

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See my works at theonteo.com

EDUCATION

2019 - 2023

Digipen Institute of Technology - Singapore

BS in Computer Science in Real-Time Interactive Simulation (RTIS)

- Linear Algebra Teaching Assistant - 2020
- Primarily pursued Editor , Tools , Graphics and Technical Art

2014-2016

Singapore Polytechnic - Design School

Diploma In Game Design and Development

- Design School Club - Publicity Head

CAREER

2018 - 2019

Training Specialist - Mastereign

- Taught coding, media and game development related programmes to primary and secondary students.
- Utilized various software such as hopscotch and scratch to promote computational thinking.

SKILLS

High Level Languages

C , C++ , GLSL

Web Development

JavaScript, TypeScript , HTML, CSS,
Material UI

Libraries

ImGui , OpenGL , Qt , three.js

Frameworks/IDE/Systems

React, Visual Studio, Visual Code,
Github

Commercial Engines

Unity , Unreal

FEATURED PROJECTS

SIMPLE. 3D C++ Engine

Graphics | Tools | Editor | Technical Art

- Worked with software engineers with different areas of experiences to put together the custom engine.
- Developed graphics pipeline required to render complex large 3d scenes.
- Created custom optimization techniques depending on the projects requirement to improve performance.
- Built editor with ImGui for designers to use edit levels and manipulate data.
- Custom tools to populate environment such as mesh sculpting and mesh painting.
- See more here: <https://theonteo.com/project-simple>

[C++](#) , [C#](#) , [OpenGL](#) , [GLSL](#) , [ImGui](#) , [GitHub](#) - [CICD Workflow](#)

Real-Time interactive React Websites

Front-end | Web Development | [Personal projects](#)

- Built multiple websites that explores the application of a website with 3d elements and front-end aspects.
- A website with 3D Point Clouds that together forms an image.
- A 3d environment website that pans a camera as the user scrolls.
- Worked with a back-end developer for a financial tracking app where users can track their financial spending.
- See more here: <https://github.com/theonteo/image-point-cloud>

[React](#) , [three.JS](#) , [html](#) , [CSS](#) , [Material UI](#) , [JavaScript](#) , [TypeScript](#) , [Netlify](#) , [Github](#)

Multiplayer UDP C++ Engine

Networking | Rendering

- Created a base 3d engine for team members to build upon.
- Winsock setup to connect to various host.
- Designed shaders and created rendering pipeline for scene rendering.
- See more here: <https://github.com/theonteo/multiplayer-udp-winsoc>

[C++](#) , [Winsock](#) , [OpenGL](#) , [GLSL](#) , [Github](#)

Photo Selector Software Application

Editor | Application | [Personal project](#)

- Small Qt utility application to select photos and list them in a txt file.
- See more here: <https://github.com/theonteo/photo-selector>

[C++](#) , [Qt](#)

NFT Collection Project

Website | Procedural | [Personal project](#)

- Use of Unity engine for procedural avatar creation of NFTs.
- Working with artist to create avatar systems.
- Created website for hosting the engine to view models in real-time.

[React](#) , [Unity](#) - [C#](#) - [WebGL](#) , [Html](#) , [Material UI](#) , [TypeScript](#) , [Netlify](#) , [Github](#) , [Maya](#)

AWARDS

2020

Digipen Awards

- Best Technology
- Runner Up Best Freshman Game
- Runner Up Most Innovative Game

2011-2012

Singapore Game Creation Competition

- First Runner Up - 2011
- Second Runner Up - 2012

See more at theonteo.com