**Languages**

* C++
* C#
* Java
* JavaScript / HTML / CSS
* JQuery
* SQL
* OpenGL
* DirectX 11

**Tools**

* Visual Studio
* Unity
* Unreal
* Intellij
* Spring Boot
* Git
* Perforce
* Qt5
* Photoshop

**Skills**

* Software Engineering
* Game Design
* Shader
* Unreal Blueprint
* Object-Oriented Design
* Data Structures
* Agile Development
* Procedural Generation
* Web Development

**Hobbies**

* Rubik’s Cube
* Painting

**Projects**

**2D Tile Map Editor with Scriptable Brush** Jun. 2020 – Present

C++ | Qt 5 | Thesis

* Built tile-based map editor with layer, tools, and saving/loading the map
* Created scriptable brush system that allows user to customize the brush
* Structured a plugin for exporting a map from editor to Unity

**Trikaya** | SMU GUILDHALLJun. 2020 – Dec. 2020

Unreal Engine 4 | 11 people team | Shipped to Steam

* Established interactable object base class
* Programmed check point and saving system

**HaberDashers** | SMU GUILDHALLFeb. 2020 – May. 2020

Unreal Engine 4 | 60 people team | Shipped to Steam

* Implemented kart movement and physics
* Designed game blueprint architecture through engineering discussions

**Light Up The Knight** |SMU GUILDHALLOct. 2019 – Dec. 2019

Unity 5 | 4 people team

* Developed setting panel for level designers
* Implemented auto path, combo system and score system

**Personal Engine** | SMU GUILDHALLSep. 2019 – Present

D3D11 C++

* Developed 2D and 3D rendering framework
* Designed multiple systems such as input, audio, event system, dev console
* Implemented 2D collision correction

**Education**

**Southern Methodist University – Guildhall** | Plano, TXMay 2021

Master of Interactive Technology, Specialization in Software Development

**Fo Guang University** | Yilan, TaiwanJun. 2017

Bachelor of Science in Department of Applied Informatics

**Work experience**

**Back End Engineer (Full Time)** |TPIsoftwareFeb. 2018 – Jul. 2019

* Implemented the internal ERP system modules for the 200 employees
* Generated the accounting sheets for user which display the asset details
* Handled the database with over 10000 data

**Chien-Yu Chu**

Tools Programmer & Game Programmer

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