TARO KUMAGAI

SOFTWARE ENGINEER

CONTACT

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Sacramento, CA 📍

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EDUCATION

Bachelor of Science
Computer Science & Game Design
DigiPen, Institute of Technology
April 2023
Redmond, WA

Bachelor of Science
Chemistry
UC Santa Cruz
June 2016
Santa Cruz, CA

SKILLS

Unity Engine
Unreal Engine 4
Visual Studio
C, C#, C++
Tortoise SVN, GitHub
Dear ImGui
FMod API, Wwise API

Language
English
Japanese

PROJECT EXPERIENCE

Custom NavMesh Generator

AI Programmer / Unity Engine / Team Flaming Skeleton / DigiPen

January 2023 - April 2023

- Made a Unity component that generates a 2D NavMesh that is able to identify walkable terrain and obstacles on meshes created in Unity
- Agents use A* Pathfinding with paths created from the NavMesh
- Created Debugging tools to trouble shoot and display the different aspects of the NavMesh such as what parts of the mesh are obstacle, which areas are walkable by agents, and the possible paths agents may take

Grocery Gauntlet / 3D Split-Screen Party Game

UI & Generalist Programmer / Unreal 4 / Team Later Sk8ters / DigiPen

September 2022 - January 2023

- Reconstructed UI Menus screens to be less buggy and easier to navigate
- Set up stat tracking for player gameplay so that they can be displayed at the end of each game
- Implemented UI menu controls for gamepad and keyboard

Runes of Legacy / Top-down Action Dungeon Crawler

AI & Audio Programmer / Unity Engine / Team Phantom Forge / DigiPen

September 2021 - May 2022

- Implementation of Enemy FSM behaviors introducing 5 different enemy behavior types
- Designed FSMs to be easily adjustable for Game Designers through Unity's Inspector tab allowing them to adjust things such as projectiles being shot, movement speed, animation speed, player detection range, etc.
- Collaborated with Audio Designer to implement audio features with Wwise

Ironvale Grove / 2D Tug-of-War Strategy Game

Tech Lead / Custom C++ Engine / Team Knight Owls / DigiPen

September 2020 - April 2021

- Worked with team to construct a custom C++ engine
- Collaborated with Audio Designer to implement audio features with FMOD API
- Implementation of game engine editor features with Dear ImGui
- Management and delegation of tech team tasks

Inventory / 2D Puzzle Platformer

Programmer / Alpha Engine / DigiPen

December 2019 - April 2020

- Implementation of game object components such as "transform", "colliders", or "physics"
- Implementation of a level editor/builder making use of files created by program known as "Tiled"
- Implementation of "hot spot" based collision system that would reduce to load created by the level editor that would create many game objects

WORK EXPERIENCE

Sales Engineer

Enplas Microtech Inc

September 2017 - July 2019 / Santa Clara, CA

- Communicated between clients and engineering team in Japan on the development of microfluidic products
- Assisted in the production of microfluidic plastic prototypes
- Examination and troubleshooting of microfluidic plastic products

Certificate Clerk / Rice Grader

Overseas Merchandise Inspection Company (OMIC)

October 2016 - August 2017 / Sacramento, CA

- Issuing certificates for crops that underwent successful GMO and Chemical Residue Testing
- Maintaining samples and equipment in the office lab
- Crop sample preparation used for GMO and Chemical Residue Testing
- Inspection of rice mills and grading of rice samples