LinkedIn- https://www.linkedin.com/in/kecheng-tao-bab33a1a0/

GitHub- https://github.com/ktao1

Portfolio: https://ktao1.github.io/portfolio_game

Kecheng Tao

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#Skills

Source Control	Programming Languages	Game Engine	IDE/Text Editor
GitHub	C / C++ / C#	Unity	Visual Studio Code
		Unreal	Visual Studio 2017/2019

#Education

University of Maryland Baltimore County / Bachelor of Science in Computer Science GPA: 3.817

September 2017 - May 2021: Baltimore, Maryland

#Projects

Sword Shiba / Unity 2D game

GitHub: https://github.com/ktao1/Sword-Shibe

Project Description:

- Sword Shiba is a 2D roguelike single player game. Players will control a Shiba dog to explore 3 randomly generate biomes. Each biome contains random rooms. Players need to search each room to find a specific key then open the current biome's boss room by this key. After players beat the current biome's boss, they can go to the next biome.

Random Maze Generator / Unreal Engine 4

GitHub: https://github.com/ktao1/g4g2020

Project Description:

- Create a C++ Actor, which is UE4's base class for anything that can be placed in a scene. The actor is build a maze using the randomized Pimm's algorithm.

Boid behavioral model / Unreal Engine 4

GitHub: https://github.com/ktao1/g4g2020

Project Description:

- Create a C++ Pawn, which is UE4's base class for anything that can be controlled by either a user or AI in a scene. The pawn will be a rolling ball following a simple Boid behavioral model.

Mitchell's best candidate algorithm (Blueprint Plugin) / Unreal Engine 4

GitHub: https://github.com/ktao1/g4g2020

Project Description:

- Create a new Blueprint node and data type in a UE4 plugin that to hold data about a blue noise point distribution generated using Mitchell's best candidate algorithm.

File Import Plugin / Unreal Engine 4

GitHub: https://github.com/ktao1/g4g2020

Project Description:

- Create an new MaterialExpression node for the UE4 material editor that implementing the random tiling UV transformation described in a chapter of GPU Gems 2, and in slides from the Graphics Hardware Conference.

Material Node / Unreal Engine 4
GitHub: https://github.com/ktao1/g4g2020
Project Description:

- Create an new importer to create a UVolumeTexture object from a file. The importer will load files in a subset of the MHA/MHD format.

Float Textures / Unreal Engine 4
GitHub: https://github.com/ktao1/g4g2020
Project Description:

- Extend the core Unreal Engine code. Adding a new TSF_RGBA32F floating point source format to Texture.h.

Chess Game / Linux Kernel Module
Project Description:

- A Linux kernel module that can be used to play against the user/AI in a game of chess, the kernel module will take in inputs from the user which will be validated and then sent to the local server.