

CHE (TOMMY) TANG

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SKILLS

Technical Skills: C/C++, C#, UNITY, UNREAL, OpenGL, GLSL, Git, SVN, Perforce, CI/CD, ImGui, WSL, Linux, RenderDoc, Visual Studio, Visual Studio Code

EDUCATION

DIGIPEN INSTITUTE OF TECHNOLOGY

BS in Computer Science in Real-Time Interactive Simulation
Cumulative GPA: 3.67 / 4.0; Dean's List 2020 - 2021

Redmond, WA
Sep. 2020 – Apr. 2024

WORK EXPERIENCE

SO-CAYENNE ENTERTAINMENT

Unity software engineer

Taipei, Taiwan
Oct. 2018 – May 2019

- ❖ Implemented a time zone system for a mobile game published in multiple regions (戦国 RENKA ズーム!), which allows in-house designers to effortlessly schedule and publish game events across different countries.
- ❖ Implemented a CI (Continuous Integration) environment on Gitlab to help the team check daily build stability.

RAYARK INC.

Quality assurance analyst

Taipei, Taiwan
Oct. 2019 – May 2020

- ❖ Worked on a multi-region published game (Soul of Eden), that has 1m+ downloads on IOS/Android platforms.
- ❖ Implemented an automation tool to test daily quests and player tutorials, saving QA one hour of manual testing per day.

UNIVERSITY PROJECTS

GMKT2024 GAME JAM, PROJECT HAT

AI and gameplay programmer, Unity 6 people team project

Aug. 2024 – Aug. 2024

- ❖ Implemented a timeline-based boss behavior system by using finite state machine and animation events.
- ❖ Designed gameplay features and collaborated with artists to integrate art assets, sound and VFX.

RAID PARTY

AI and gameplay programmer, Unity, 9 people team project.

Sep. 2023 – Feb. 2024

- ❖ Collaborated with other programmers to design a finite state machine decision making system.
- ❖ Implemented the boss's skill mechanics as well as physical simulations.

TRINITY FORCE

AI and gameplay programmer, Unity & Nintendo Switch, 3 people team project.

Nov. 2023 – Dec. 2023

- ❖ Implemented boss behaviors and boss fight mechanics by using Unity animation events.
- ❖ Integrated player, enemies, boss models, animation, sound, and VFX.

HIDDEN WORLD

AI and sound programmer, Unity & Unreal, 3 people team project.

Sep. 2022 – Apr. 2023

- ❖ Developed a maze structure procedural content generation by backtracking algorithm.
- ❖ Constricted a function that selectively integrates appropriate sound effects to enhance natural auditory experiences.

MARINE ECOSYSTEM SIMULATOR

AI and gameplay programmer, Unity, 3 people team project.

May 2022 – Jul. 2022

- ❖ Implemented an advanced behavior tree that enhances decision-making through a utility system, enabling the actor to make smarter and more rational choices.

SPLIT SPIRIT

Physics and gameplay programmer, C++ custom engine, 11 people team project.

Sep. 2021 – Apr. 2022

- ❖ Implemented Euler method and Newton's law to simulate real-world physics.
- ❖ Implemented 2D Circle, AABB collision detection, and resolution to simulate collision in real world.
- ❖ Implemented attaching and trampolining function to improve the overall gameplay experience.

SIDE PROJECTS & RESEARCH

- ❖ Implemented A* Pathfinding: using smoothing and rubber banding algorithm to make the path more natural.
- ❖ Implemented terrain analysis, occupancy map, influence map, visibility map, search and propagation function.
- ❖ Conducted research to evaluate the feasibility of Wave Function Collapse algorithm for maze generation.