TOMMY TANG

He/Him | Redmond, WA | +1 425-614-9579 | tommy.tang@digipen.edu | Portfolio | Linkedin

SKILLS

Technical Skills: C/C++, C#, UNITY, UNREAL, OpenGL, Git, SVN, Perforce, CI/CD, ImGui, WSL, RenderDoc, Visual Studio, Visual Studio Code
Languages: Fluent in English, Mandarin.

EDUCATION

DIGIPEN INSTITUTE OF TECHNOLOGY Redmond, WA
BS in Computer Science in Real-Time Interactive Simulation Sep. 2020 – Apr. 2024
Cumulative GPA: 3.7/4.0; Dean's List 2020 - 2021

WORK EXPERIENCE

SO-CAYENNE ENTERTAINMENT Taipei, Taiwan
Unity software engineer 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. Taipei, Taiwan
Quality assurance analyst 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.

DIGIPEN INSTITUTE OF TECHNOLOGY Redmond, WA
Teaching assistant Sep. 2022 – Dec. 2022
- ❖ Assisted students in answering questions about advanced C++ assignments and labs.

UNIVERSITY PROJECTS

BOSS GAME
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.

SUMO SPINNING TOP
Gameplay programmer, Unity & Nintendo Switch, solo project. Oct. 2023 – Oct. 2023
- ❖ Implemented multiple-player battle gameplay and features.
- ❖ Implemented local four-players system and motion control with Joy-Con.

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. Apr. 2022 – Sep. 2021
- ❖ 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.

ADDITIONAL

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.