Carter (Po-Chung) Yang

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SELECTED ACADEMIC PROJECTS

3D Narrative Game "Vertical Slice"   Gameplay Engineer, Team of 7, Unity
- Created a finite-state machine to manage player and dialogue status.   10/2020 - present
- Developed a data prefab generator and a custom inspector for collaborators to adjust game parameters.
- Designed and developed an event trigger system with high scalability using interfaces and inheritances.

Casual Mobile Game "Ring React"   Solo, Unity
- Monetized with Google Play's payment system and advertisement service.   07/2018 – 10/2018
- Provided the ranking and achievement system for players to compete with each other.
- Published the game on Google Play and made over 100 stages.

2D Action Platformer Game "Towncount"   Game Programmer, Team of 6, Unity
- Developed animation system, scene manager and physics engine from scratch.   10/2016 – 06/2017
- Built various systems including skill tree, rope physics, dynamic map, save & load system.
- Designed 3 challenging bosses with varied attacks and movements.

Programming Educational Game "Robot Farm"   Full-Stack Web Developer, Team of 3, JavaScript
- This project was presented in ACTC 2015.   02/2014 – 07/2016
- Educated over 600 students and still on track in Yuan Ze University.
- Developed the block-based coding system without any frameworks.
- Deployed the server and database for teachers to create custom stages.
- Implemented logging system to record player actions during gameplay process.

WORK EXPERIENCE

IT Engineer, Tokyo Marine Newa Insurance, Taiwan   Full-Stack Web Developer
- Developed many workflow management systems with ASP.NET MVC, such as absent note.   10/2017 – 05/2018
- Maintained insurance websites and fixed front-end security problems (CSRF, XSS, etc.).
- Volunteered to help colleagues that are struggling with programming tasks.

IT Engineer Internship, Move In Pocket Co. Ltd., Taiwan   Game and Full-Stack Web Developer
- Implemented API services for cabin attendants in EVA Air.   08/2016 – 03/2017
- Developed and released 4 games on Google Play, and embedded Alipay payment API.
- Guided peers to build the managed service for Taiwan government employees.

Research Assistant, Yuan-Ze University, Taiwan   Full-Stack Web Developer
- Built the programming educational game called "Robot Farm".   02/2014 – 07/2016
- Analyzed playtest data and arranged levels to improve programming learning progress.

EDUCATION

Yuan-Ze University, Taiwan   Bachelor of Science in Information Communication
- GPA: 3.85 / 4.0; ranked 2 / 56 in the class.   09/2013 – 06/2017
- Relevant Coursework: Game Development, Interactive Computer Graphics,
 Internet Programming, Mobile Device Programming, Windows Programming, Web Programming, Database System.

SKILLS

Game Development: Unity, OpenGL, Script Optimization (Reduce GC Alloc, etc.), Engine Development.
Cyber Security: CTF, Reverse Engineering, Network Security, Game Security, GDB, IDA Pro, Cheat Engine.
Programming Language: C#, C/C++, Python, Assembly, Golang, Typescript, JavaScript, ASP.NET, Objective-C.
Language: English, Japanese, Chinese.
Other: Digital Drawing, Code Refactoring, Linux/Unix Administration, AI Development, MSSQL, OpenCV, WinAPI, Jira, Github.

ACTIVITIES

Google CTF 2020   08/2020
- Solved 2 reversing engineering problems, and 2 web problems.

PicoCTF 2019   10/2019
- Got into the top 90 global rankings before the event ended.