Ta "David" Yu

Game Developer, Gameplay/Tools Programmer
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EXPERIENCE

BearBone Studio, Remote – Freelance Game Programmer
July 2023 – Present

- Contribute to the development of the narrative indie title, Minds Beneath Us, set for release on PC and other console platforms in 2024. The game is made in Unity.
- Joined the project during its late stage and took on the role of a firefighting programmer who proactively resolves bugs and improves tools' pipeline and user experience.
- Enhance existing UI systems to provide controller support and take charge of audio implementation using FMOD.

Endless Clouds, Remote – Contract Game Programmer
August 2023 – October 2023

- Collaborated closely with the game director on the prototype feature branch of an upcoming PvP brawler, Capsule Heroes, which is developed with Unity and Photon Fusion.
- Successfully refactored several existing game systems, originally developed during a company game jam, to optimize production pipeline support. This includes refining touch input, introducing death screen interface, building modularized skill telegraphing system, and implementing a suite of level editing tools.

DYEngine (Game Engine), Remote – Solo Developer
November 2022 – Present

- Developed a 2D ECS game engine in modern C++, utilizing SDL2, OpenGL, Dear ImGui, and EnTT.
- Implemented a scene editor with support for undo/redo operations and play mode testing.
- Built a custom code generator that parses custom macro keywords to generate code for user-defined type serialisation and interface logic for the scene editor.
- Created a custom GLSL syntax parser for managing render state in shader code.
- Designed the render pipeline to support multiple windows in one game application.

Codeglue, Remote – Programming Intern
October 2021 – March 2022

- Successfully ported the Shadowrun Trilogy to all major consoles (PS4, PS5, Xbox One, Xbox Series, and Switch).
- Worked closely with designers and QA testers and successfully resolved more than 250 bugs with the extensive use of a debugger and the creation of customized tools tailored to tackle specific bugs.
- Programmed an automatic asset replacement tool in Unity that extracts assets from the AssetBundles of the original PC build to substitute them for missing/corrupt resources.
- Navigated and worked with an extensive large legacy codebase, originally created in Unity 4.0 in 2013; needed to manage three projects within a single repository with tangled logic and massive singleton classes.
- Proactively created written documentation to clearly convey issue resolutions and tool usage to both technical and non-technical team members.

Gerritory, Remote – Lead Programmer, Designer, Artist
October 2017 – October 2020
- Released on Steam and Nintendo Switch and has won several game awards since its debut.
- Led a team of 4 programmers remotely and communicated the requirements for code structure and core mechanics.
- Optimized and ported the game to Nintendo Switch. Including but not limited to draw calls reduction, improving game startup loading time and asset loading optimization.
- Implemented an in-game level editor with box selection, copy/paste, and undo/redo features using command pattern for easier level creation process. Final levels are stored in the level thumbnails using steganography.

EDUCATION

B.A. Digital Games, Game Programming – Cologne Game Lab (CGL), TH Koeln, Germany
September 2019 – July 2023

B.S. Computer Science – National Chiao Tung University (now National Yangming Chiaotung University), Taiwan
September 2014 – June 2018, Graduated (GPA: 3.86 / 4.30)

SKILLS

Development Tools
- Unity: 6+ years experience, with console porting (Nintendo Switch, Xbox) knowledge
- Unreal: Developed a variety of short-term school projects with both Unreal C++ & Blueprint
- SDL2 (with OpenGL), FMOD, Dear ImGui, Entitas, Photon Fusion, EnTT, RenderDoc, Visual Studio, Rider, CLion, CMake, git, SQL

Programming Languages
- C++: Used to implement a custom 2D game engine for my bachelor project at CGL
- C#: Used professionally in Unity
- JavaScript + ReactJS: Made my own portfolio website
- GLSL/Unity Shader: With computer graphics knowledge

Languages
- Mandarin Chinese: Native
- English: Fluent, Professional level

RELATED AWARDS & ACHIEVEMENTS

Gerritory
- Best Design, Taipei Game Show, Indie Game Award 2019
- 2nd Place in Best Student Game, Indieplay China 2018
- Sliver in PC game genre and several other awards, Vision Get Wild 2018
- Official Selection, The MIX Indie Showcase at TGDF 2018

Other
- Academic Achievement Award, National Chiao Tung University