HUNG BUI

Irvine, CA | ✉ hungbuiwork@gmail.com | https://hungbuiwork.github.io/portfolio/#/GD | LinkedIn: hung-d-bui

Detail-oriented programmer with a strong background in collaboration, writing well-structured code, and creating tools that accentuate game visuals. Seeking an entry-level gameplay engineering or technical art internship or position.

SKILLS

Programming Languages: ★ C#, ★ Python, C++, ★ HTML5, ★ CSS, Javascript, Typescript, SQL
Game Development Tools: ★ Unity (3D, 2D, VR), ★ Unreal Engine, ★ Github, Perforce
Software Development: ★ React.js, ★ Tailwind, Angular, Figma, Numpy

SELECT PROJECTS

More projects at https://hungbuiwork.github.io/portfolio/#/GD

WARTORN: Art Lead, Technical Artist (Unreal, Trello) Team: 16 **20 weeks**
A first-person 3D walking simulation set in a post-attack scenario, where a young child looks for her parents in a wartorn hometown.

- **Collaborating closely with level designers** to create a rich and immersive environment enriched with lighting and post-processing effect
- Created customizable post-processing materials and fragment shaders using Material Editor for atmosphere
- Managed art department using Agile methodologies, conducting sprints, communicating tasks, checking for quality, and establishing an efficient workflow

ZOT DEV: Gameplay Programer/UI Engineer (Unity, C#) Team: 17 **10 weeks**
A 2D game that simulates the life of a game dev major, challenging players to balance energy, sleep, mental health, and GPA.

- Collaborated in the creation of **UML diagrams**, effectively streamlining the code production of 6 programmers
- Engineered **intuitive in-game UI system** for class signups, **incorporating prerequisite checking akin to skill trees.**
- Developed an enjoyable minigame that awarded energy points, which was easily integrated into the sleep system.

PROCEDURAL TREE GENERATION: Programmer, UI (Unity, C#) Solo **4 weeks**
A tool for building organic-looking trees/plants (in 3D) from simple rules, using Lindenberg -systems

- Conducted in-depth research on the fundamental process of L-systems and created a C# implementation from scratch.
- Developed two scripts from scratch: 1) A C# L-system implementation generating the plant's structural information, and 2) A parser that creates the plant in a **recursive-like way, using 3D vector calculations.**
- Formed a solution to render foliage and animate the growth of plants, accompanied by an online demonstration

MUSICAL MADNESS: **Project Leader, Programming, UI (Unity, C#)** Team: 16 **7 weeks**
A 2D top-down procedural dungeon crawler video game, with an engaging combat system and boss fights

- Adopting **Agile methodology, led weekly game design meetings and sprints** for a dedicated team of 6.
- Designed code structure of player/enemy scripts to be reusable and modular, using **UML diagrams** to communicate to other team members, resulting in organized and efficient code development
- Programmed and **optimized custom procedural dungeon-generation algorithms in C#**, resulting in a system that allowed easy expansion and unique level-creation

EXPERIENCE

WEBSITE DESIGN INTERN Irvine, CA
at *UCI | Game Design & Interactive Media* Feb 2023 – June 2023

- Designed visually engaging informational flyer using Figma, used to promote UCI's GDIM major at Game Developers Conference 2023, expanding the reach and exposure of the GDIM major
- Created and organized HTML & CSS course/syllabus websites for faculty members
- Communicated and coordinated with faculty in creating a website to showcase student projects

GAME PROGRAMMER Irvine, CA
at *Hugh's Design & Media Lab* | "Patient Zero"(3D VR simulation game) | Team size: 19 Oct 2021 – April 2022

- **Fixed bugs,** especially pertaining to visuals, communicating with other programmers
- Redesigned/implemented intuitive 3D pause menu in C#, matching sci-fi aesthetic
- Improved visual effects, lighting, and post-processing in Unity3D, resulting in a more realistic, aesthetic VR environment

EDUCATION

UNIVERSITY OF CALIFORNIA, IRVINE Expected graduation: June 2024
Major in **Computer Science** & **Computer Game Science (spec. in Visual Computing & Graphics)** **GPA: 3.94**

Merits: UCI Summer Academy Logo Design Competition 2023(2nd of 40+ entries)
Phi Beta Kappa Honor's Society Book Award Recipient 2021
Dean's Honor List(All Quarters), Cum Laude