Chak Shun (Andy) Pang

cp487@cornell.edu, github.com/andypang1010, andypang.me

EDUCATION

Aug 2021 — Present

Bachelor of Arts, Cornell University

- **Major:** Computer Science
- **Minor:** Game Design
- **Clubs:** Development in Games Association, Cornell Mixed Reality
- **Relevant Coursework:** Introduction to Computer Graphics, Introduction to Game Development, Foundations of Artificial Intelligence, Computer Systems Organization, Algorithms & Data Structures, Functional Programming, Discrete Mathematics, Object-Oriented Programming, C++ Programming, Linear Algebra, Multivariable Calculus

PROJECTS

Apr 2024 — Present

Hiraishin — Independent Project

- **Initiated the development** of a **3D first-person action game** in **Unity**, featuring advanced **space-time manipulation mechanics** such as **teleportation** and **bullet time** to empower the player
- **Architected** complex, scalable levels with **progressive difficulty**, integrating multiple classes of **adaptive enemy AI** that exhibit **emergent behaviors** and dynamically respond to player actions, encouraging diverse strategic approaches to environment traversal
- **Engineered** the gameplay system, utilizing techniques like **Procedural Animation**, **State Machines-**, and **AI Pathfinding**. Applied **object-oriented programming principles** in **C#** to manage game logic, interaction systems, and optimize performance for smooth gameplay across various hardware configurations

Aug 2024 — Aug 2024

ALICE alice — GMTK 2024

- **Developed** a **2D platformer** in **Unity** within **96 hours** for the **GMTK 2024 Game Jam**, collaborating with a team of seven to address the theme **"Built to Scale"**
- **Designed** intricate levels and core gameplay mechanics focused on the concept of **scaling**, creating an immersive world inspired by **"Alice in Wonderland"**, and integrating narrative elements that align with the theme
- **Implemented** key systems, including the **player and NPC movement system**, a **universal scaling system**, the **audio system**, and **UI interactions/functionalities**, ensuring seamless integration across all components of the game for a cohesive user experience

Sep 2023 — Oct 2023

Glutton-Free — Ludum Dare 54

- **Secured a top 20 popularity ranking** in **Ludum Dare 54 Game Jam**, developing a widely acclaimed game within **72 hours** with a team of three, centered around the theme **"Limited Space"**
- **Engineered** an innovative **soft body physics system** utilizing **2D bone rigging**, significantly enhancing the gameplay dynamics and player immersion
- **Developed** a cohesive **UI interaction system** and **state management system**, ensuring a seamless and intuitive user experience
- **Designed** the tutorialization of game mechanics, obstacles, and objectives in a clear, engaging, and accessible manner, enhancing player onboarding and overall enjoyment

EMPLOYMENT HISTORY

Jan 2024 — Present

Undergraduate Teaching Assistant, Cornell University

- **Provided academic support** during office hours (~1-2 hrs/week), delivering **expert guidance** on complex course material and assignments to enhance student understanding
- **Collaborated with faculty** and peers in weekly grading sessions (~3-5 hrs/week) to ensure **fair and accurate evaluation** of student work
- **Mentored students** on final projects, offering feedback and **assessing project deliverables** (~1-2 hrs/week in the second half of the semester), promoting **high standards** of technical and conceptual achievement

SKILLS

Languages: C#, C++, JavaScript, Python, Java, Swift, C, OCaml, HTML, CSS

Engines & Frameworks: Unity, Unreal Engine, UE Blueprints, LibGDX

Databases: Firebase, MongoDB, MySQL, SQLite

Development Tools: Git, Bash, Unix/Linux