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| Chak Shun (Andy) Pangandy-pang.com, 3475563499, cp487@cornell.edu | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| EDUCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug 2021 — Present | | | | | | | | | | | | | | | | | Bachelor of Arts, Cornell University | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | |
| * **Major:**Computer Science * **Minor:**Game Design * **Clubs:**Development in Games Association, Cornell University 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, Linear Algebra, Multivariable Calculus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| PERSONAL PROJECTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct 2024 — Oct 2024 | | | | | | | | | | | | | | | | | PolyGone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ludum Dare 56 | | | | | | | | | | | | | | | | |
| * Developed a 3D action-stealth game in Unity within 72 hours, collaborated with a team of six to address the theme "Tiny Creatures". * Implemented a comprehensive Finite State Machine (FSM) to ensure seamless action and animation transitions for player and enemy characters. * Engineered a robust combat and stealth system, encouraging diverse player strategies and enhancing gameplay depth. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep 2024 — Dec 2024 | | | | | | | | | | | | | | | | | The Interrogation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Coursework Film Project | | | | | | | | | | | | | | | | |
| * Directed a short student film focused on themes of trust, relationships, and progressive mental breakdown, overseeing all stages from concept development through final editing * Collaborated with a team to design and execute scenes inspired by "The Dark Knight", Inglourious Basterds", and "The Silence of the Lambs", focusing on psychological tension through lighting, framing, and sound design * Led on-set coordination with actors and crew, completing all footage in 20 hours over 2 days, followed by 3 weeks of editing to deliver rough, fine, and final cuts for a Kiplinger Theater premiere | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aug 2024 — Dec 2024 | | | | | | | | | | | | | | | | | Flight Sim | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Coursework Graphics Project | | | | | | | | | | | | | | | | |
| * Developed 3D world terrains, clouds, and vegetation, creating an expansive plane for players to explore, enhancing the immersive experience. * Implemented procedural terrain generation using Perlin Noise functions to create customizable meshes, allowing flexible parameter adjustments to modify terrain appearance and complexity. * Programmed procedural vegetation and terrain features, dynamically spawning trees, foliage, and other elements to boost realism and immersion in the game environment**.** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 centered on the concept of scaling, creating an immersive world inspired by*Alice in Wonderland*, while integrating narrative elements aligned with the theme. * Implemented key systems, including player and NPC movement, a universal scaling system, audio, and UI interactions, ensuring seamless integration across all components for a cohesive user experience. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jul 2024 — Jul 2024 | | | | | | | | | | | | | | | | | Second Species | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | CiGA 2024 | | | | | | | | | | | | | | | | |
| * Developed a 2.5D puzzle-solving platformer in Unity within 48 hours, winning 1st place in a game jam with a team of six, centered on the theme "Limited and Limitless". * Implemented various classes of interactive objects, enabling dynamic player interaction with the environment to solve complex puzzles. * Designed and built levels using custom assets created by the art team, ensuring seamless integration of gameplay mechanics and visuals. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr 2024 — Present | | | | | | | | | | | | | | | | | Hiraishin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Independent Game Project | | | | | | | | | | | | | | | | |
| * Initiated the development of a 3D first-person action game in Unity, featuring advanced space-time manipulation mechanics like teleportation and bullet time to enhance player abilities. * Designed complex, scalable levels with progressive difficulty, integrating adaptive enemy AI that dynamically responds to player actions, encouraging diverse strategies for environment traversal. * Engineered the gameplay system using techniques such as Procedural Animation, State Machines, and AI Pathfinding. Applied object-oriented programming principles in C# to manage game logic, and interaction systems, and optimize performance for smooth gameplay across different hardware configurations. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apr 2024 — Apr 2024 | | | | | | | | | | | | | | | | | Back to Life | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ludum Dare 55 | | | | | | | | | | | | | | | | |
| * Collaborated with a team of three to develop a 3D puzzle exploration game in Unity within 72 hours for Ludum Dare 55 Game Jam, themed "Summoning". * Engineered complex puzzle mechanics, inspired by*Return of the Obra Dinn*, involving dynamic object interactions and dialogue reconstruction to solve mysteries. * Designed an advanced unlockable system using randomized algorithms and object state management, ensuring smooth progression and preventing gameplay soft locks. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan 2024 — May 2024 | | | | | | | | | | | | | | | | | Everlast | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Coursework Game Project | | | | | | | | | | | | | | | | |
| * Led a team of four programmers within a group of seven to develop a 2D speed-running game using the LibGDX framework. * Designed the software architecture following Object-Oriented Programming (OOP) principles for scalable and maintainable code. * Developed core features, including an advanced AI system, customizable audio, a responsive player controller, and a dynamic level generation system using Tiled. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan 2024 — Jan 2024 | | | | | | | | | | | | | | | | | Kuso Neko | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Global Game Jam 2024 | | | | | | | | | | | | | | | | |
| * Developed a 2D side-scrolling infinite runner game using Unity within 72 hours, collaborating closely with a small team of three to execute core gameplay mechanics under tight constraints. * Engineered a procedural generation system for dynamic obstacles and collectible food items, ensuring replayability and a unique player experience in every run. * Conceptualized and implemented a Hunger management system, where players must balance resource consumption to maintain optimal performance, introducing strategic decision-making by requiring players to stay agile while avoiding exhaustion and enemy threats. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sep 2023 — Oct 2023 | | | | | | | | | | | | | | | | | Glutton-Free | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Ludum Dare 54 | | | | | | | | | | | | | | | | |
| * Secured a top 20 popularity ranking, developing a widely acclaimed game within 72 hours with a team of three, centered around the theme "Limited Space". * Engineered the soft body physics system utilizing 2D bone rigging, significantly enhancing the gameplay dynamics and player immersion. * Designed the tutorialization of game mechanics, obstacles, and objectives in a clear, engaging, and accessible manner, enhancing player onboarding and overall enjoyment. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oct 2022 — Dec 2022 | | | | | | | | | | | | | | | | | Lumiere | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Independent iOS App Project | | | | | | | | | | | | | | | | |
| * Developed an iOS tracker app for logging, commenting, and organizing watched movies and future watchlists. * Achieved rapid user adoption, processing over 1,000 database read/write requests within the first two days of launching on the App Store. * Implemented a robust email authentication system using FirebaseAuth and securely managed data storage with Firestore, ensuring scalability and user data protection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| EMPLOYMENT HISTORY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Jan 2024 — Present | | | | | | | | | | | | | | | | | Undergraduate Teaching Assistant, Cornell University | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | |
| * Provided academic support during office hours (1-2 hrs/week), offering 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 deliverables (1-2 hrs/week in the second half of the semester) to promote high standards of technical and conceptual achievement. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mar 2023 — Jan 2024 | | | | | | | | | | | | | | | | | Co-Founder, TechCafe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | |
| * Led a collaborative project to develop an NFC-based web service that enabled seamless menu interaction for customers across Japan. * Designed and implemented the user interface using ReactJS and Bootstrap, ensuring an intuitive, responsive, and mobile-friendly experience. * Integrated the Stripe API for secure, streamlined payments, established connectivity with NFC tags, and utilized Firebase for efficient data storage, along with Socket.io for real-time communication. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| SKILLS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | **Languages:**C#, C++, JavaScript, Python, Java, Swift, C, OCaml, HTML, CSS  **Engines & Frameworks**: Unity, Unreal Engine, LibGDX  **Databases:**Firebase, MongoDB, MySQL, SQLite  **Development Tools:**Git, Bash, Unix/Linux | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |