

XAVIER TAN YI XUAN

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Aspiring game programmer with a strong foundation in computer science and design from SUTD, and professional experience as a software engineer intern. Experienced in Unity and C# from personal projects and game jams, with a passion for crafting immersive, novel gameplay experiences that engage and inspire players.

EDUCATION

Singapore University of Technology and Design (SUTD)

Expected Sep 2027

Bachelor of Engineering in Computer Science and Design (Highest Distinction expected)

SUTD Technology Entrepreneurship Programme (STEP) Scholar

- **Relevant Coursework:** Foundations of Game Design and Development, Graphics and Visualisation

University of California, Berkeley

Expected Sep 2027

Master of Science in Technological Entrepreneurship

GAMES

Light And Seek – 2D Puzzle Platformer

- Description: Transform into your shadow to solve light-based puzzles in a dark fantasy setting.
- Skills: Trailer Design, Level Design, Art Direction and Animation, Playtesting and Iterative Design, Git Collaboration
- Tech Stack: Unity, C#, PixSquare, DaVinci Resolve
- Itch.io: [Link](#) | Video: [YouTube](#)

Reboot – 2D Puzzle Platformer

- Description: Rewind time to summon illusions and solve sci-fi puzzle challenges.
- Skills: Git Collaboration, 2D Environment and Character Art, Playtesting and Iteration, Design Documentation,
- Tech Stack: Unity, C#, Git, PixSquare
- Itch.io: [Link](#) | Video: [YouTube](#)

KitchenChaos – Co-op Cooking Simulation

- Description: Fast-paced kitchen chaos where players work together to cook and serve meals.
- Skills: UI/UX design, Unity Basics like Prefabs and ScriptableObject System.
- Tech Stack: Unity, C#, Git
- Itch.io: [Link](#) | Video: [YouTube](#)

Arcade-mania – Rhythm/Arcade Game

- Description: Arcade remake of Techmania with streamlined UI and IoT controller integration.
- Skills: Visual trees, MQTT integration, Lua scripting, XML customization.
- Tech Stack: Unity, C#, MQTT, Lua, XML, Git
- Video: [YouTube](#)

NeoArcade VR – VR Simulation

- Description: VR prototype of a futuristic arcade with interactive, immersive environments.
- Skills: 3D Animation, Unity Real Time and Baked Lighting, 3D Environment design, AI asset creation.
- Tech Stack: Unity HDRP, C#, Git
- Video: [YouTube](#)

Dune Survivors – Roguelike Tower Defense

- Description: Survive hostile desert runs with procedurally generated maps and smart enemies.
- Skills: Pathfinding Algorithms, Isometric Tilemaps.
- Tech Stack: Unity, C#, Git
- Video: [YouTube](#)

StillFlight – VR Exploration & Photography Game

- Description: Explore tranquil VR environments, photographing bird species to earn income and upgrade your camera for capturing rarer birds.
- Skills Learnt: Adobe Substance Texturing, Unity Terrain creation, Unity XR Basics
- Tech Stack: Unity, C#, Adobe Substance 3D

Forgotten Depths – First-Person Survival Horror

- Description: Survive in Las Vegas tunnels as a homeless person while facing nightly threats and resource scarcity.
- Skills Learnt: 3D Environment Design, Modular Inventory System using Unity Interfaces and Inheritance
- Tech Stack: Unity, C#, Git

WORK EXPERIENCE

Software Engineer Intern at Nika.eco | *Typescript, React, Next JS, React Native, Deck.GL* *Aug 2024*

- Built an interface using the Segment Anything Model (SAM) for satellite imagery segmentation, with text/point prompts, OpenStreetMap data integration for refined accuracy, and a preview feature for faster feedback.
- Designed a chatbot that enables users to seamlessly convert natural language into actionable functions, search for existing files in their storage, and navigate the complex website with ease, by leveraging OpenAI for function calling, and tools like MiniLM for intent processing.
- Created a UI for displaying, processing, and downloading datasets from the GEE API, utilizing compositing and algebraic calculations to transform satellite data into actionable insights.

Game Developer Intern at VirtuLabs | *Unity, C#, MQTT, Lua, UXML* *Jan 2025*

- Built **NeoArcade VR**, a futuristic VR arcade prototype set in Japantown, SF, featuring interactive installations like multiplayer gaming hubs, touchscreen photo booths, vending machines, and dynamic cherry blossom walls.
- Redesigned **Techmania** into an arcade-style rhythm game with a simplified UI for arcade-style gameplay and integrated IoT controller support via the MQTT protocol.
- Gained hands-on experience with lighting & baking in HDRP, AI-assisted asset creation, Lua scripting, and Unity XML.