XAVIER TAN YI XUAN

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Aspiring game programmer with a strong foundation in computer science and design, seeking a game programming internship to bridge academic knowledge with hands-on experience in the gaming industry. Passionate about enhancing proficiency in Unity and Unreal Engine, developing creative problem-solving skills, and collaborating on innovative game projects.

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:** Elements of Software Construction, Machine Learning, Android Programming

University of California, Berkeley *Expected Sep 2027*
Master of Science in Technological Entrepreneurship

WORK & VOLUNTEER EXPERIENCE

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

Light And Seek | *Unity, C#, PixSquare, Git, DaVinci Resolve* *Mar 2025 - Present*
- Developed a 2D puzzle game where players transform into their shadow to solve intricate, light-based puzzles.
- Utilized a Game Design Document (GDD) to effectively coordinate with team members and align on gameplay mechanics, art direction, and development milestones
- Built and iterated level layouts through greyboxing, incorporating playtesting feedback and documenting puzzle logic to ensure clear player progression and engaging challenge design.
- Designed immersive environments, custom tilesets, and character animations in PixSquare to match a dark fantasy aesthetic and atmosphere.
- Produced and edited the game trailer for submission to a game jam event using DaVinci Resolve

PERSONAL PROJECTS

Dune Survivors | *Unity, C#* *Mar 2025 - Present*
- Designed a roguelike tower defence game where players survive through travelling through a desert and other treacherous terrain, becoming more powerful after every run
- Implemented enemy pathfinding using Dijkstra's algorithm to create intelligent, dynamic enemy movement across the game map.

Reboot | *Unity, C#, PixSquare, Git* *Mar 2025 – Apr 2025*
- Created a 2D side-scrolling puzzle platformer where players summon "illusions" by rewinding time.
- Used Git for collaborative development across a small team.
- Designed environments, tilesets, and character animations in PixSquare with a sleek, sci-fi-inspired aesthetic.

Undercooked | Unity*, C#, Blender* *Jan 2024 - Mar 2024*
- Built a cooperative cooking simulation game featuring dynamic kitchens and time-based challenges
- Wrote clean, maintainable, and scalable code by leveraging Unity's prefab and ScriptableObject systems, along with design patterns such as Singleton for efficient game architecture.
- Designed interactive UI elements, including animated splash and menu screens, enhancing user engagement.