

Benjamin Lau Rey Jun

Game Designer & Programmer

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ABOUT ME

Hello! I am a **Computer Science student** at **DigiPen (SIT)** specializing in **Interactive Media & Game Development**. Skilled in **gameplay and level design**, with strong technical foundations in **C++, C#, AI systems, and custom engine development**. Experienced in creating projects that blend **procedural generation, responsive combat, and system-driven mechanics** with **player-centric design** and **engaging experiences**. Led multi-member teams as **Product Manager**, guiding both **design decisions** and **technical implementation**. Seeking an internship at game companies as a **Gameplay Designer or Gameplay Programmer** to contribute fun, meaningful, and polished gameplay experiences.

EDUCATION

DigiPen Institute of Technology Singapore, Singapore

Sep 2023 – Apr 2027

- BSc. Computer Science in Interactive Media and Game Development (Honours)
- Relevant Coursework:** Software Engineering for Games, Level Design & Prototyping, Artificial Intelligence for games (pathfinding, behaviour trees), Game Systems & Mechanics Design, Game Implementation Techniques

Singapore Polytechnic

Apr 2018 – May 2021

- Diploma in Interior Design

TECHNICAL SKILLS

Programming Languages: C, **C++**, **C#**, SQL, ASM, Python
Engines: **Unity**, **Unreal Engine 5**, Custom C++ Engine
Tools: **Git/Github**, ImGui, Android Studio, VS/VS Code
AI Libraries: OpenCV, Dlib, PyTorch, InsightFace, YOLO
AI Methods: Synthetic Data Generation, LLM Prompts

DESIGN SKILLS

Graphics: **Blender**, 3ds Max, Rhino, SketchUp, InDesign
Prototyping: **Aseprite**, Figma, Photoshop, Illustrator
Gameplay & AI: **Systems**, **Mechanics**, **Pathfinding**
Level Design: **Layouts**, **Pacing**, **Balancing & Playtesting**
Combat Design: **Encounters**, **Telegraphs**, **Iteration**

PROJECTS

Amber's Last Light | Level Design Project DES214 (OIP – DigiPen, Redmond WA)

Jun 2025 – Jul 2025

- Role: Solo Developer. Developed a **3D first-person horror thriller** in **Unreal Engine 5**, focusing on **narrative-driven exploration** and **environmental storytelling**. Built all assets using **UE5's in-built editor**
- Handcrafted the entire level layout** across multiple districts, using **lighting, sound cues, and spatial composition** to **direct players naturally** toward objectives **without any on-screen text or dialogue**
- Playtested **30+ times** across **12–20 minutes** of gameplay, receiving **95% positive feedback** on the level's **intuitiveness, readability, and its balance of tension and thrill**. Project awarded **Distinction**, scoring **120%**

Shroomy Doomy | Software Development Project 4 CSD2451

Sep 2024 – Apr 2025

- Role: Product Manager/Programmer. **Led an 8-member team** to build a **custom 2D C++ game engine and turn-based strategy game** featuring **tile-based movement, A* pathfinding, and cooking-based stat customization**
- Designed and implemented a **C++ to C# interop layer via Mono**, enabling **runtime scripting** of entities, animations, audio, and transforms, which streamlined designer iteration and **cut prototyping time by ~30%**
- Built a **modular tile-highlighting and movement preview system** powered by A* feedback, **drastically improving player decision-making** clarity during playtests

Slimey | Software Development Project 2 CSD1451

Jan 2023 – Apr 2023

- Role: Product Manager/Programmer. **Led a 5-member team** to create a **2D C++ game** featuring **softbody physics, deformable terrain, and projectile combat**
- Engineered a **spring-mass softbody system** with **dynamic mesh generation** and **real-time collision resolution**, ensuring **stable physics across 100+ simulation test cases**
- Selected as a **showcase project** and later adopted as a **teaching reference for future DigiPen cohorts**.

WORK EXPERIENCE

Student Coach | Singapore Institute of Technology

Oct 2024 – Mar 2025

- Supported **30+ students** at **ProjectHub/Catalyst** by facilitating ideation, design, and prototyping sessions, enabling **10+ cross-disciplinary projects** across Engineering and ICT clusters to **move from concept to implementation**
- Guided projects using **Unity, custom C++ engines, Blender, and tabletop design** through **3D printing**, helping teams progress from early concepts to **functional digital and physical prototypes** showcased in their own modules

Computer Vision Engineer | National Service (SAF)

Aug 2021 – Aug 2023

- Collaborated in a **4-member team** to **build a facial recognition system** using **OpenCV, InsightFace, and Dlib**, integrating **real-time camera feed detection** with a **central database**. **Improved recognition accuracy** among **500 participants** from **76% to 95%** by optimizing **preprocessing and model inference**
- Designed and deployed a **vehicle object detection pipeline** leveraging **OpenCV, PyTorch, and Unity/Blender-generated synthetic datasets** to **overcome limited training data**. **Boosted real-time detection accuracy** from **55% to 86%**, ensuring **reliable performance in live environments**

COMPETITIONS

Micro Design Challenge Summer 2025 | Participant

Aug 2025

- Worked in an international team of **9 students from Latvia, Korea, and Singapore** to design a **mobile AR tutorial app** guiding beginners in real-time makeup application
- Presented the prototype to **METABANK Korea**, addressing a **consumer AR problem statement**, and was selected as **1st-runner up solution** among **8 competing teams**.

OSS4AI Open-Source AI Hackathon #18, Microsoft Redmond WA | Participant

Jun 2025

- Collaborated in a **5-member team** to develop an **AI-powered resume curation tool**, using **LLMs** to **parse job descriptions** and **restructure candidate resumes**.
- Delivered a working prototype in **under 5 hours** that was **accepted as a viable solution** among **300+ participants** for **streamlining recruitment workflows**

Micro Design Challenge by SIT x HNU 2025 | Participant

Jan 2025

- Partnered with an **international team of 8 member from Korea and Singapore** to design a **mobile AR museum guide and interactive escape room experience**, enhancing **cultural engagement through gamification**
- Presented the solution to the **Asian Civilisations Museum (Singapore)**, where it was **selected as the best solution** among **5 competing teams**

Global Game Jam Singapore 2024 | Participant

Jan 2024

- Built a **3D cooperative Unity game** in 48 hours with a **4-member team**, designing **teamwork-driven mechanics** and personally creating all assets in **Blender**
- Project was accepted as a complete, playable game submission **among 66 game entries**

CO-CURRICULAR ACTIVITIES

Captain | Singapore Institute of Technology CueSports Club

Jan 2025 – Dec 2025

- Led a **30+ member varsity team** in training and competition, achieving **1st Runner-Up at the Singapore University Games (SUniG) 2025** and reinforcing the club's record of **consistent top placements** at national tournaments
- Directed **training schedules, competitive strategies, and team performance**, ensuring players **maintained high standards** across the season
- Partnered with the **coach and school staff** to set strategic goals, fostering a culture of **discipline, teamwork, and inclusivity** that improved member development and retention

LANGUAGES & EXTRAS

- **English** – Native (Spoken & Written)
- **Mandarin Chinese (Simplified)** – Conversational (Spoken), Basic (Reading & Writing)
- **Hobbies** – Gaming (No Man's Sky, Borderlands franchise, AC Origins/Shadow, LoL, Valorant), Anime, Billiards