

Kaan Dai

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EDUCATION BACKGROUND

DePaul University, Chicago, IL, USA

Graduation Date: **June 2026**

Major: **Master of Science in Game Programming**

Relevant Courses: Applied 3D Geometry • Optimized C++ • Computer Graphics & Rendering • Architecture Real-Time Systems
• Real-Time Multithreaded Architecture • Real-Time Software Development • Optimized C++ Multithreading
• CUDA Development • Real-Time Networking

Programming Skills: Python • Java • C++ • C# • Swift • Kotlin • React • SQL • HTML • CSS • Git

Game Engines: Unity • Unreal Engine

Koc University, Istanbul, Turkey

Graduation Date: **June 2024**

Major: **Bachelor of Science in Computer Engineering**

Certifications: Cisco IoT Fundamentals: IoT Security, Cisco Cybersecurity Essentials

GAME PROJECTS

Angry Birds (2D Physics Puzzle Game)

January 2026 – March 2026

- A fully featured Angry Birds clone developed solo in **C++** using a **custom 2D game engine**, integrating **Box2D physics** for realistic collision and destruction simulation. The project features multiple handcrafted levels, **a full cast of unique birds** with special abilities, destructible block structures and a complete game feel with animations, audio, and particle effects.
- Implemented a physics driven **slingshot system** with rubber band stretch mechanics, trajectory based launching and **smooth camera tracking** that follows the active bird and transitions between **queue birds automatically**.
- Engineered **six** distinct bird types each with unique special abilities. **Blue Bird** triple split, **Yellow Bird** speed boost, etc.

Island Survivor (3D Survival Strategy Game)

June 2025 – September 2025

- Created an **intelligent minion AI** that automatically follows the player, manages work delegation for resource gathering/storage and maintains formation using proximity-based state transitions, using **C#** and **Unity**.
- Developed an **enemy AI system** with state machine architecture featuring idle, patrol, and combat states using **NavMesh** pathfinding and collision avoidance for dynamic enemy behavior.
- Implemented **comprehensive upgrade system** allowing the player to upgrade their tool and character stats, minion stats and base capacity, and developed spawn system for strategic gameplay progression.
- Implemented **procedural map generation** to create varied environments using **Tessera**.
- Designed systems for resource collection, storage, and management.
- Programmed UIs for resource tracking, construction, and gameplay menus.
- Created a **generic in-game purchase and Google Ads modules for game monetization**.

Meadow Survivor (2D Roguelike Shoot 'Em Up Game)

June 2025 – July 2025

- Developed player mechanics including movement, combat, and animation systems, using **C#** and **Unity**.
- Created and programmed **weapons with upgradable features** for progressive gameplay.
- Implemented core UI elements including start menu and in-game upgrade menu.
- Balanced **game difficulty and rewards** to create engaging progression that encourages players to replay the game.

Space Invaders (2D Arcade Game)

January 2025 – May 2025

- Implemented **core gameplay mechanics** including player movement, projectile systems, enemy formation patterns, and collision detection for authentic arcade experience, using **C#** and **object-oriented** programming principles.
- Designed **progressive difficulty scaling** with increasing enemy speed and spawn rates to replicate classic arcade gameplay loop.
- Created **scoring system** with UI elements for player feedback and game state management.

Undergraduate Final Project – INAIID-RPG (2D AI Role-Playing Game)

January 2024 – June 2024

- Developed a unique, single player, 2D Role-Playing Game where **players interact with AI companions** in a dynamic world using **C#** and **Unity**. The game uses player decisions and language models to create a narrative, with AI companions responding based on various factors like story, health, environment, tasks and relationship. Collaborated with 3 undergrad students in development.
- Engineered the **animations, player mechanics, level designs and UI**.
- Created a **working inventory** with weapons and armors that are stacked when utilized, and configured various **damage systems** for the players, enemies and the bosses.

WORK EXPERIENCE

Unity Mobile Game Development Intern

July 2025 – September 2025

Orchestra Games | Istanbul, Turkey

- Developed and designed a mobile game “Island Survivor”, using **C#** on **Unity**.
- Collaborated closely with team partner through daily meetings to plan and coordinate project development cycle.

Software Engineering Intern - Frontend

July 2023 – August 2023

Arcelik | Istanbul, Turkey

Tech Stack: **React**

Android Software Engineering Intern

August 2022 – September 2022

Vestek | Istanbul, Turkey

Tech stack: **Kotlin**

Software Engineering Intern – Backend

January 2022 – February 2022

HepsiJET | Istanbul, Turkey

Tech Stack: **Java**, **Spring Framework** and **APIs**.

iOS Software Engineering Intern

August 2021 – September 2021

Vestel | Istanbul, Turkey

Tech Stack: **XCode**, **Swift**, **APIs**, **Google Firebase**