

Ariya Bayat | GAME DEV, PROGRAMMER

✉ shadyleegamer@gmail.com

☎ 073 983 571 03

in [LinkedIn](#)

Personal Summary

Immersed in game development since the age of 10. Published my first mobile game at the age of 14, and recently published a high-speed anime platformer on Itch. Worked in teams with other programmers through 13 game jams. I have always been curious of the technical side of games and how they solve problems through elegant solutions, and I am keen to take on new challenges.

TECHNICAL SKILLS

General:	C# (4y) – Unity (6y)
Web dev tools:	JavaScript (3y) – HTML (1y) – CSS (1y) – WebGL (2y)
Source control & back-end:	Git (3y) – Firebase (6m) – JSON (3m)
Productivity:	Notion (3m) – Trello (3y) – Word (4y) – PowerPoint (3y)
IDE:	Visual Studio (4y) – Android Studio (3m)
Others:	Java (3m) – Python (6m)

Learn more about these projects on my portfolio: <https://shadyleegamer.github.io/>

WORK EXPERIENCE

Okainos (Online multiplayer card game)

AUG 2021 – OCT 2021

Recruited as lead developer by an artist I met in a game jam to help transition the game from alpha to closed beta.

- **Development & maintenance of back-end systems:** Integrated real-time database with over **25** accounts, multiple method authentication, web hosting and cloud storage to the game and website.
- **Reduced number of updates:** Implemented server-side update system to reduce installation by players with card data assets.
- **Optimization of data process:** Automated the writing and reading of card data between the editor and database in JSON with Rest API through custom editor scripts.
- **Launched alpha testing campaign through web dev:** Built a website that attracted over **20** players resulting in valuable feedback and live testing.
 - Firebase-integrated authentication system linked to game database, enabling users to login via a single account.
 - Managed game access for alpha testers to a **100** key group generated by Itch.io, stored in cloud storage.
 - Signed up to **13** accounts via mailing list, stored in real-time database.
- **Card deck builder (SerDes):** Designed a code containing details of card decks which is imported and exported by the game.
- Made a team planner tool for players to trade cards and filter cards by properties (rarity, tribe, stats) and name.

PROJECTS

Edge Runner (High-speed anime platformer)

JUNE 2022 – PRESENT

Recently shipped a high-speed anime platformer game on Itch.io, featuring complex gravity-bending physics.

- **Spline-based character controller:**
 - Greatly optimized player movement by minimizing collision detections and replacing engine-physics with a custom physics solution utilizing splines.

- Consistent physics stress tested against extreme movement speeds and very low frame rates.
- **Assist system** – Aids player inputs to better achieve desired actions through input buffering, dash extension and environment snapping.
- Flexible control locking system used to prevent player input from interrupting moves like wall jumping and hitting a launch pad.
- ▶ **Extensive use of splines** – Developed a custom extension for Unity's Sprite Shape API that breaks splines down to segments and points for full control and flexibility. Use cases:
 - **Entity movement on splines** – player grinding on rails, enemies moving along walls.
 - Aiding level design through real-time visualization of splines points, corner types and normals.
- ▶ **Dynamic Camera** – Utilized Cinemachine to follow a target influenced by player movement and state to tweak the feel of each.
- ▶ **Profiler analysis** – Maintained performance of **283** changing transforms, reducing frame time impact from **45.7%** to **2.6%**.

Game Jams (13)

SEPT 2020 – MAY 2022

Collaborated with other programmers in teams on **13** game jams, including one ranked **15th** place out of **158** entries! **6** of them are exported to WebGL. Highlights of Systems developed:

- ▶ **Dungeon level generator** – Random level generation sequence inspired by Spelunky.
- ▶ **Object pooling** – Maintained performance of over **100** objects of different types present in the scene.
- ▶ **Combo system** – Featuring a basic attack and two different special attack combos with pc, controller, and mobile support.
- ▶ **Isometric grid movement** – Displays movement tiles with collision detection for movable and immovable objects blocking path.

2020 Survival Game

APR 2020 – AUG 2020

Made and published a fun survival game on Google Play and PC during BTEC course over the quarantine about surviving a lockdown, collecting toilet papers, and shooting soap at the infected! Reported **80** unique user installs.

Tap Fever (First published game)

SEPT 2016 – JUL 2017

Published my first mobile arcade game on Google Play at the age of 14. The game features an endless gameplay loop with 4 different game modes for variety and 3 different skins for customization.

EDUCATION

Ark Walworth Academy

SEP 2019 – JUL 2021

(Distinction**) BTEC Level 3 National Extended Diploma in Information Technology

Relevant units included: Computer Games Development – Programming – Mobile Apps Development – Website Development – Using Social Media in (Game Studio) Business

Hobbies: BJJ – Dancing – Music Production – Sculpting – Table Tennis – Anime