Ariya Bayat – UNITY DEV, PROGRAMMER

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Personal Summary

Seasoned Unity Developer with over 7 years of experience, from transitioning a multiplayer card game from alpha to closed beta to recently publishing a high-speed anime platformer. Built various mobile games from a notable survival game made during my BTEC course to currently making AR experiences using AR Foundation. Worked alongside artists, designers and fellow devs in 13 game jams, and I am keen to take on new challenges.

TECHNICAL SKILLS

GENERAL:	Unity (7y) **|** AR Foundation (3m) **|** C# (5y)
PRODUCTIVITY:	Notion (3m) – Trello (3y) **|** Word (4y) **|** PowerPoint (3y)
SOURCE CONTROL & BACK-END:	Git (3y) **|** Firebase (6m) **|** JSON (3m)
WEB DEV TOOLS:	JavaScript (3y) **|** HTML (1y) **|** CSS (1y) **|** WebGL (2y)
IDE:	Visual Studio (4y) **|** Android Studio (3m)
OTHERS:	Java (3m) **|** Python (6m)

Review these projects and the code in my portfolio: https://shadyleegamer.github.io/

WORK EXPERIENCE

Okainos **\|** Lead Developer *(Online multiplayer card game)*
JAN 2021 – OCT 2021

- ✓ **Achievement:** Transitioned Okainos 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 manual updates** – Developed update system of card changes (buffs, nerfs, tweaks) 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 closed-beta 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 beta testers to a **100** key group generated with 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.
- ▶ Other systems such as friends manager synced with account, team planner for filtering cards by properties (rarity, tribe, stats), and battle system.

PROJECTS

ARrow Simulator
OCT 2023 – PRESENT

Currently developing a local multiplayer Augmented Reality game using AR Foundation. AR features include plane detection, entity placement and anchoring. Developed an item spawner that keeps track of plane bounds to spawn power ups nearby into the field.

Edge Runner *(High-speed anime platformer)*

Recently published a high-speed 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 inputs to better achieve desired actions through input buffering, dash extension and environment snapping.
- ► **Reusing flexible systems** – Control lock system used to manage and prevent interruption of different special events.
- ► **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. Used for:
  - **Suitable movement system** – Solved multiple problems of custom physics through elegant use of spline points.
  - Aiding level design through real-time visualization of splines points.
- ► **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

Worked with other programmers in teams on **13** game jams, including one ranked **15**th place out of **158** entries! **6** of them were 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 a scene.
- ► **Combo system** – Featuring a basic attack and two different special attack combos with pc, mobile and controller support.
- ► **Isometric grid movement** – Displays movement tiles with collision detection for movable and immovable objects blocking path.

EDUCATION

Ark Walworth Academy

(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