# **ADAM BETZ**

Victoria, BC

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#### **SUMMARY**

Gameplay Programmer with professional experience developing games and systems in Unity, Three.js, and PyGame. Shipped a commercial Steam title, Pitchfork Kingdom, and currently building a Python game engine utilizing ECS, and a C++ game engine. Skilled in designing modular gameplay systems, collaborating with designers and artists, and delivering engaging player experiences. Passionate about writing clean, maintainable code and building tools that empower creative teams.

#### **CORE SKILLS**

- Languages: C#, C++, Python, JavaScript (Node.js, React), Kotlin.
- Engines / Frameworks: Unity, Pygame, Three.js.
- Concepts: Gameplay Systems, ECS Architecture, AI (GOAP / Utility), Modular Design, Reinforcement Learning.
- Tools: Git, Firebase, Android Studio, Docker, AWS, Google Cloud, Jira.

# **WORK EXPERIENCE**

# **Game Developer**

Aug 2023 - Present

ArenaX Labs

- Developed multiple gameplay systems and features in Unity (C#), emphasizing maintainable architecture and modular design.
- Built a custom ECS-based engine in Python, integrating an ImGUI interface for rapid development and iteration.
- Designed and implemented gameplay features and UI systems using JavaScript, Three.js, and React for a browser-based live service game.
- Led and mentored a small team of programmers, managing tasks, reviewing pull requests, and ensuring consistent coding standards.
- Collaborated closely with designers and artists to develop engaging gameplay mechanics and solve complex technical challenges.
- Optimized asset management, reducing texture sized by up to 50%.

# Full Stack Android & Back End Developer

Jan 2021 - Jul 2023

Ergonomyx

- Developed Node.js APIs using Firebase Cloud Functions and Firestore.
- Integrated Google Calendar API to automate calendar events from the server.
- Built Android app features and fixed bugs in Kotlin using MVVM architecture, focusing on user experience and performance.
- Collaborated in an agile team environment to deliver cross-platform solutions.

#### **EDUCATION**

Bachelor of Science, Computer Science

Vancouver Island University, Nanaimo BC

• Relevant courses: Foundations of Game Design, Game Studies, Software Engineering, Database Systems, Computer Networking, and Human-Computer Interactions.

#### **PROJECTS AND ACHIEVEMENTS**

#### C++ Game Engine – Personal Project (Ongoing)

- Building a custom engine in C++ with Visual Studio to explore low-level systems and engine architecture.
- Built core modules for logging and event system.

# **Camplandia** – Solo Unity Project (*In development*)

- Designed and implemented a 2D building system in C# using a grid-based placement mechanic.
- Implemented Utility AI for complex agent behaviors.
- Utilized delegates, events, and namespaces for modular, scalable code.

# **Pitchfork Kingdom** – Unity Project (*Released on Steam, Sep 2022*)

- Managed the full development cycle from prototype to Steam release.
- Utilized Scriptable Objects, editor scripting, prefab variants, and serialization to efficiently construct levels in the Unity editor.
- Employed version control and project management tools for efficient collaboration with artists and to maintain scope and quality.

# Space Guy 3 – University Team Project

- Collaborated with a 4-person team in Unity to deliver a complete space game.
- Designed and implemented procedural level system with customizable parameters such as map size and number of planets.

#### **Tokyo Thief** – University Class Project

- Served as Producer, managing a 25-student team through development milestones.
- Coordinated schedules, presentations, and team communication to ensure unified vision and project success.

#### OTHER EXPERIENCE AND INTERESTS

- Coding Club Instructor Taught basic programming concepts to grade-school students (2019)
- Soccer Team Captain Led team strategy and coordination (2019–2023)
- Passionate about game development, gaming, running, and fitness.

Apr 2021