

## SUMMARY

---

Experienced Gameplay Programmer with 3+ years in building multiplayer games in C++, Blueprints, Unreal Engine 4 & 5, C#, and Unity 3D. Shipped titles include *Nightingale* and *Thrive: Heavy Lies the Crown*. Proven track record of implementing robust gameplay systems in encounters, procedural world generation, AI, and animation. Skilled in cross-functional collaboration, accurately pinpointing the right problems to solve, and delivering the best solutions based on a growing technical skill set. I am dedicated to creating memorable player experiences and supporting my team with strong leadership and effective collaboration.

## TECHNICAL SKILLS

---

**Languages:** C++, C#, Blueprints

**Game Engines:** Unreal Engine 4 & 5, Unity 3D

**Gameplay Systems:** Encounters, Procedural World Generation, AI, Animation, Gameplay Ability System (GAS)

**Networking:** Replication (Unreal), Photon (Unity)

**Debugging/Profiling:** Unreal Insights, Gameplay Debugger Tool, Visual Logger

## PROFESSIONAL EXPERIENCE

---

Inflexion Games

Edmonton, AB

**Gameplay Programmer II** — *May 2024 - Nov 2024*

**Gameplay Programmer** — *Feb 2021 - Feb 2022*

- Shipped *Nightingale*, a multiplayer survival crafting game built in Unreal Engine 5 using C++ and Blueprints, into Early Access and maintained various gameplay systems including encounters, procedural world generation, creatures, AI, and animation in Live Service.
- Developed many parts of the encounter system, a multiplayer event system combining various aspects of *Nightingale's* gameplay, including puzzle, combat, building, and traversal encounters, persistence, replication, presentation systems, automated testing, and debug tooling.
- Acted as the primary point of contact for the encounter system, collaborating cross-functionally with other gameplay teams to align features with the game's vision, maintain the integrity of other systems, and identity fun gameplay experiences.
- Spearheaded data authoring improvements through validation tools, automation, rulesets, and streamlining the development of new POIs and encounters, significantly reducing bugs and time spent on authoring and debugging.
- Bridged the gap between encounter and AI systems, adding boss support, improving close-quarters combat, revamping enemy distribution, centralizing the spawning system, and supporting the development of new creatures and creature-centric POIs.
- Developed level design actors including pickups that grant progression unlocks, gameplay abilities (GAS), and currencies, interactable structures, and tileset actors including gates, pressure plates, and bustable walls, encouraging exploration and greater POI engagement.
- Supported the creation of procedurally generated dungeons and world through the development of POI distribution systems and designer tools, enabling precise placement of bespoke content alongside procedural elements.
- Provided mentorship for junior team members, cross training for designers, and established a daily encounter review to inform and enable the wider team to contribute to the creation of new encounters and POIs.

Zugalu

Calgary, AB

**Game Developer / Web Developer** — *Feb 2021 - Feb 2022*

- Developed core gameplay systems for *Thrive: Heavy Lies the Crown*, a multiplayer city builder RTS game built in Unity3D using C#, including the weather system, territory manager, and daily event system.
- Coauthored a Discord chat game, engaging our community, quadrupling our message count, and achieving Discord partnership.
- Led the development, shaped the UX design, and managed the completion of one of *Zugalu's* largest website contracts, meeting critical deadlines and fostering a strong client relationship.

## PROJECTS

---

### Survival Crafting Roguelike — *In Development*

- Currently developing a survival crafting roguelike using my Wave Survival Game framework.
- Implementing features including procedural map generation using Perlin noise and level streaming for POIs, an inventory system, melee combat, and survival mechanics, using Unreal's Gameplay Ability System.

### Wave Survival Game — *2025*

- Developed a fully networked third-person wave survival game from scratch in Unreal Engine 5 using C++ and Blueprints.
- Implemented character movement, an interaction component, an action/attribute system (GAS-inspired), hitscan and projectile attacks, pickups, enemy AI, an event-driven UI system, game mode logic, and optimizations including async asset loading.

### Arachnid Animation Study — *2025*

- Developed a procedurally generated scorpion walk cycle using Control Rig in Unreal Engine 5.
- Implemented a Control Rig Forward Solve algorithm that calculates the location of each leg's step using sphere traces, locking/unlocking each leg until it reaches a distance threshold, and cycling through each leg to simulate realistic movement.

### Pacman RTS — *2021*

- Developed an RTS game set inside the classic Pacman map in Unity 3D using C#.
- Implemented orbital camera controls, unit selection (individual and box selection), pathfinding, enemy AI, turrets, a main menu, and sound and particle effects.

### Betting On Colors — *2021*

- Developed a multiplayer gambling game in Unity 3D using C# and Photon.

## EDUCATION

---

University of Calgary

*Calgary, AB*

**Bachelor of Science in Computer Science, Minor in Philosophy** — *Sep 2015 - June 2020*

## OTHER EXPERIENCE

---

Sunago

**Co-Founder** — *Aug 2024 - Present*

- My wife and I founded a charity supper club called *Sunago*, where we've hosted over a dozen dinners and raised thousands of dollars for charities that combat food insecurity and support food education like Edmonton's Food Bank.

Shokunin

*Calgary, AB*

**Server / Manager** — *Feb 2018 - Aug 2020*

- Worked as a server and manager at *Shokunin* during its peak season with the launch of *Netflix's The Final Table*.
- Developed an onboarding program to standardize the offering of tasting menus and improve table turnover, reducing sit times to 90 minutes.
- Trained the front of house team in Japanese cooking techniques, terminology, and sake and wine offerings.

## INTERESTS

---

I spend most of my free time bouldering, swing dancing, or playing volleyball. I love the mountains and I look forward to skiing in the winter and hiking or rock climbing in the summers. I love cooking and look for every opportunity to host brunches and dinners and to experiment with food. I enjoy studying philosophy, especially Stoicism and the principles of Japanese craftsmanship. My favourite game genre is fighting games, especially for their polished presentation, the technical mastery they demand, and the unmatched energy of their community. Let's play a round sometime!