

Excellent Willie-Pepple
Indiana, United States
+1 (260) 435-0455, Willei01@pfw.edu
[LinkedIn](#)

SUMMARY

Computer Science major graduating in 2025 with three software engineering internships at Amazon Games and AWS. Strong in backend systems, distributed infrastructure, cloud networking, and C++ development. Proven success in optimizing systems, debugging high-traffic services, and leading collaborative projects. Passionate about building scalable, secure, and performant software systems.

TECHNICAL SKILLS

Languages: C++, Python, Java, SQL, C#, JavaScript, Kotlin

Frameworks/Tools: Unreal Engine, AWS, Git, Perforce, Django, React, Jira

Infrastructure: Route 53, DNS, BGP, Anycast, S3, Spark, Hadoop, MapReduce

Strengths: Backend Development, Networking, System Optimization, Debugging, Cloud Engineering, Team Leadership

PROFESSIONAL EXPERIENCE

Amazon Games - New World Aeternum — *Software Engineer Intern (Server)*

Seattle, WA · 2024

- Optimized gameplay replication systems in C++ to improve server performance.
- Reduced client bandwidth usage by 80% on high-traffic components.
- Collaborated with server teams to debug network synchronization issues across gameplay systems.

Amazon Web Services – Route 53 — *Software Engineer Intern*

Seattle, WA · 2023

- Engineered edge traffic resilience system using BGP and Anycast techniques.
- Developed safe failover logic for isolated Points of Presence during network outages.
- Designed tooling for autonomous server recovery under isolation conditions.

Amazon Web Services – Route 53 — *Software Engineer Intern*

Seattle, WA · 2022

- Built a real-time bloom filter engine to detect DDoS events and protect DNS infrastructure.
- Analyzed DNS logs and improved resolver accuracy by 90% through large-scale data pipelines.
- Strengthened core systems contributing to Route 53's 100% SLA uptime.

ACADEMIC EXPERIENCE

Purdue University — *B.S. in Computer Science*

Fort Wayne, IN · Expected 2025

- Focus: Software Engineering, Systems, Networking, Data Infrastructure

CERTIFICATIONS

- User Experience in Game Design – Epic Games
- User Interface in Game Design – Epic Games

PERSONAL PROJECTS

Software Engineer – Capstone Project (Convergence Point)

Unreal 5.4, Purdue University · 2024–2025

- Led a team of 6 developers to build and ship a single-player rogue-like game using Unreal Engine 5.
- Designed C++ systems for UI, AI, and core mechanics, managed agile sprints via Jira.
- Ported the game to Steam and debugged performance issues across platforms.
- Created the core mechanic Possession and Decomposition, allowing players to take control of enemies and use their skills as they liked.
- Built a state management component, allowing designers to effectively create, manage and update character states without needing to create countless variables.
- Implemented a custom dynamic stats component that allowed designers to set up custom gameplay attributes, access them, and update them without having to use C++, or GAS.
- Created a Hitpoint System like hollow knight to make players feel vulnerable when not controlling enemies
- Created a Cross-platform User Interface with full controller support using UMG, Common UI, State Trees, and Enhanced Input.

The Adventure Begins – Solo Project

Unreal 5.4, Ongoing

The Adventure Begins is a 2d action platformer I made as a learning project to learn 2d development and platformer mechanics. This was inspired by the adventure time cartoon and the classic super mario games.

- Implemented 2d sprites and animations directly to the engine using paper 2d.
- Implemented a basic checkpoint system to allow players to not lose too much progress when they die
- Implemented a respawn system to allow players to restart or go back to the checkpoints if they take damage/die.
- Implemented various classic platforming mechanics like double jump, acceleration and deceleration while running, coyote jump mechanics
- Implemented classic camera systems like Look Ahead and jump targeting (allows players to jump without the camera following it until it reaches a given height).
-

Tales of The Hollow – Gameplay and Systems Design.

Unreal Engine 5, Remote 2023

Tales of the Hollow was my first official game project, initially intended to be a full game but due to scope, budget and time constraints ended up being used to learn and show case my knowledge of unreal.

- Designed and implemented a full locomotion system with data driven animations for moving around terrain including crouching, sprinting and sliding.
- Designed a Vaulting System that allowed players to vault, mantle and jump over obstacles in the way.
- Designed a Dynamic Third person camera system that allowed players to do everything from swapping shoulders, adjusting camera length while sprinting and crouching and more.
- Created A Dialogue System that allowed designers to populate dialogue in the scenes by filling in data tables with dialogue lines.
- Implemented a Designer friendly Combo System for combat using a combination of techniques from animation notifies, state managers, and animation montages. This allowed designers to chain any number of attacks and specify values like iframes, hit detection and even attack chain windows all form an animation montage using notifies.