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Work Experience_

FuzzyBot Los Angeles, USA (Remote)

SOFTWARE ENGINEER (C++, UNREAL ENGINE)

Jan. 2024 - Present

- Worked on a small indie team of 25 to ship *Lynked: Banner of the Spark*; a brand new co-op game (action and townbuilding genre). Released early access on Steam, and a full world wide console release (Xbox, PlayStation, Switch). Wore many hats, touching all areas of the game.
- Created the first common UI widgets (button, controller prompts, inventory tiles/grid, async icon loader, in-world widget component), replacing the non-reusable prototype UI to fully production-ready UI in under one year.
- Independently developed key UI such as HUD, Player Portraits, Loadout, Customization, Inventories, Shops, Weapon Upgrade, Waypoints, Quest Log, and Credits. Developed gameplay/system features such as remappable input, town building, pinging, user reporting.
- · Improved memory usage and cook times by converting thousands of hard references to be async loaded.
- Optimized all screens in the game to network faster using a paged data pull system, replacing the previous 'all-or-nothing' pull. Required deep knowledge of Unreal Replication and multiplayer networking. Users went from 2s wait times to 50ms in the worst cases.
- · Solved Sony and Microsoft compliance issues on a tight timeframe, ensuring console certification in time for global launch.

Activision (Microsoft)

Toronto, ON, Canada (Remote)

UI ENGINEER (C++, LUA)

Aug. 2022 - Jan. 2024

- · Worked on Call of Duty franchise UI features in C++ and lua, used by 20 million players and designed to be maintained and used between titles.
- Focused on development and live support of the social features of Modern Warefare II (2022) and Modern Warefare III (2023). Features such as invite-to-party, online status, friend requests, messages. Involved learning and refactoring complex legacy C++ systems.
- Led the development of the "Looking for party" feature, planned the interfacing with system/engine side, and organized the widget architecture.

Behaviour Interactive

Montreal, QC, Canada (Remote)

UI ENGINEER (C++, UNREAL ENGINE, NODE.JS)

May 2021 - Aug. 2022

- Worked on Dead by Daylight, an online multiplayer game with 5 million monthly active users.
- Created the Season Pass menus in C++ with UMG (Unreal Motion Graphics). Implemented using Model-View-Presenter pattern, with specific focus on performance and maintainability to support the evolving nature of an online game.
- Took the initiative to become the backend point of contact for the UI team, developing features in TypeScript on the backend Node server.
- Served as the designated mentor for Co-op students, developing their programming skills and teaching them about the game architecture.

UI Engineer Co-op (C++, Unreal Engine, ActionScript)

Sept. 2020 - Dec. 2020

• Reduced lag spikes by 80% for console players (PS4, Xbox1, Switch) by making extensive performance improvements to player inventory menus using concepts of async loading and object pooling/recycling.

Escrypt Bosch

DO7R

Waterloo, ON, Canada (Remote)

SECURITY DEVELOPER CO-OP (C, PYTHON)

May 2020 - Aug. 2020

· Worked with an experienced team of researchers developing a custom hardware security module (HSM) for General Motors in low-level C.

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Waterloo, ON, Canada Sept. 2019 - Dec. 2019

SOFTWARE ENGINEER CO-OP (NODE.JS, REACT)

· Joined a fast-paced startup. Implemented features such as add-to-cart, equipment prices, contracts, invoices, and orders.

Veeva

Toronto, ON, Canada

SOFTWARE ENGINEER CO-OP (NODE.JS, REACT)

Jan. 2019 - Apr. 2019

• Fullstack development on a tool to convert interactive websites into PDFs for a highly regulated industry (Pharmaceuticals).

AUTOMATION ENGINEER CO-OP (JAVA)

May 2018 - Aug. 2018

• Implemented new automation testing suites in Java for UI testing and performance testing.

Education

University of Waterloo

Waterloo, ON, Canada

BACHELOR OF COMPUTER SCIENCE, HONOURS, CO-OP

Sept. 2016 - May 2021

- 3.2/4.0 GPA, Minor in History
- Relevant Coursework: Data Structures, Algorithms, OS, Concurrency, Security and Privacy, OOP, Databases, Networks, Machine Learning, Graph Theory, Logic, User Interfaces

Skills

- Languages: C++, C, Lua, JavaScript, TypeScript, ActionScript3, Python
- Frameworks/Tools: Unreal Engine, UMG UI, Node.js, GDB, Git, Perforce, Scaleform, React, SQL, ETEX