

Experience

Online Engineer at Sledgehammer Games, Melbourne Australia

July 2021 - August 2022

Published titles - Call of Duty: Vanguard, Call of Duty: Modern Warfare 2

Worked on all aspects connected to networking and online for the in-house C++ COD engine. Areas of work included, gameplay synchronization, party/lobby setup, dedicated and listen servers

- Undertook responsibility for features such as Clan Leaderboards. Involved large amount of work across teams and studios to create a feature that will continue into future games
- Large focus on debugging and fixing crash dumps near the release of the game. Required strong skills in debugging and good understanding of x86-64 assembly code
- Gained experience working in a very large team across multiple studios and disciplines all around the world

Engine Programmer at Big Ant Studios, Melbourne Australia

July 2018 - July 2021

Published titles - Tennis World Tour 2, Cricket 19, AO Tennis 2, Big Bash Boom

Main focus on updating and maintaining Big Ant studios' C++ engine for a large array of platforms, including Xbox Series X, Playstation 5, Nintendo Switch, and Steam.

- Majority of the work on updating the engine to work on Xbox Series X. This involved updates to xbox live services libraries, user management, game input, build tools and Direct X 12.
- Manage the online services and netcode code on all platforms. Key areas were synchronization issues between clients, network lag mitigation and online lobby connection management.
- Rewrote a Lua script Linter used for static code analysis. Improved programmatic checks and reduced overall build times.
- Creation and maintenance of Visual Studio Extensions and MSBuild custom build properties used internally by the team. One of which allows for deploying and debugging on android devices.
- Integrated Audiokinetic Wwise sound engine and updated gameplay sound code to accommodate the new sound engine.
- Undertook an active role in helping fellow programmers in all areas of the code base and required development tools

CASIA Innovation Projects Intern at Thales Australia, Melbourne

January 2017 - December 2017 (12 month contract)

Developer on commercial Air Traffic Control(ATC) software. Focusing on the training of air traffic controllers and providing software that assists the learning process.

- Created a video screen recording application, programmed in C. Decoded frames from a hardware video recorder and overlaid eye tracking data to help ATC instructors gain insight on students learning
- Worked on a web application frontend that remotely controlled planes in the commercial ATC software

Personal Projects

NES Emulator - C++ Nintendo Entertainment System emulator. Includes cycle accurate implementation of the 6502 processor instruction set, and basic picture processing unit. Worked on while undertaking my university degree. Emulates games such as Mario Bros, Donkey Kong, and Mega Man. All source can be found on my github

Game Jams - I've participated in several game jams in teams with ex-coworkers. A notable entry was "The Deep Ones" for 32-bit Jam 2022. Our team got second place which we are very proud to have achieved.

All the jams can be playable in browser and can be found through my website or github

Education

2014 – 2018 Bachelor of Software Engineering at RMIT University

References

Available on Request