# Aidan **Wilson**

Software Engineer · Game UI Programmer

*Montreal, Quebec, Canada*

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## Work Experience

### Behaviour Interactive

*Montreal, QC, Canada*

Game UI Programmer (C++, Unreal Engine, Node.js) *May 2021 - Present*

- Worked on Dead by Daylight, an online multiplayer game with 5 million monthly active users. Responsible for development of features on the core game (UI & Systems).
- 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.
- Led the UI development for the Halloween 2021 special event, worked closely with the Gameplay and Art team to deliver an event which was the most successful to date. Dead by Daylight reached record peak concurrent players during this event.
- Developed portable and reusable UMG C++ widgets (button, selector, loading spinner) to be used across the game client.
- 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.
- Worked on the development of 5 DLC packs, including the highly successful Resident Evil, Hellraiser, and Ringu chapters.

Game UI Programmer Co-op (C++, Unreal Engine, ActionScript) *Sept. 2020 - Dec. 2020*

- Implemented a new feature in the game settings for users to scale their menus and HUD. Utilized UMG components such as Canvas, ScaleBox, Grid, and WidgetSwitcher.
- 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

*Waterloo, ON, Canada*

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.
- Developed low level code in C for microcontrollers, rigorously following MISRA C guidelines for security, portability, and reliability.
- Produced architecture designs and documentation to ensure code met the formal specifications.

### DOZR

*Waterloo, ON, Canada*

Software Engineer Co-op (Node.js, React) *Sept. 2019 - Dec. 2019*

- Worked in a fast-paced startup building a platform with React and Node.js to digitalize the $60 billion construction equipment rental industry.
- Developed an invoicing module in Node.js which automated the creation and maintenance of all invoice data.
- Designed the data model and implemented key features such as add-to-cart, equipment prices, contracts, invoices, and orders.
- Optimized inefficient mongoose queries by utilizing standard MongoDB principles, increasing the speed of many requests on the rental management system by up to 2X. Discovered and closed a security flaw that involved logging sensitive data.

### Veeva

*Toronto, ON, Canada*

Software Engineer Co-op (Node.js, React) *Jan. 2019 - Apr. 2019*

- Responsible for deployments and infrastructure on AWS for Web2PDF, learning about EC2, S3, Load Balancers, and IAM.
- Implemented first stages of a new logged-in experience web app for Web2PDF using RESTful API fundamentals with React frontend and Node.js/express backend. Designed the SQL schema for the data model, which was reviewed by senior engineers.
- Developed new features and improvements to the core PDF creation engine such as custom page height and mobile viewport support.

Automation Engineer Co-op (Java) *May 2018 - Aug. 2018*

- Created and maintained all test cases and testing suites for the Web2PDF product. Increased automation coverage by over 50% for Web2PDF.
- Implemented new automation testing suites in Java for UI testing (Selenium) and performance testing.
- Learned the fundamentals of agile, feature delivery, git source control, and debugging.

## 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, JavaScript, TypeScript, ActionScript3, Python, Java
- Frameworks/Tools: Unreal Engine, UMG UI, Node.js, GDB, Git, Perforce, Scaleform, AWS (S3, EC2), React, SQL, MongoDB, LaTeX, Selenium