Wolf Van Dierdonck

wvandier@uwaterloo.ca ✉
github.com/WolfDierdonck
linkedin.com/in/wolfvd in

Education

University of Waterloo / Bachelor of Software Engineering / **90.6% GPA**   Sep 2020 – Apr 2025

Experience

Incoming @ Spatial Systems / Backend Engineer   San Francisco, CA / Sep 2022 – Dec 2022

Spatial Systems / Virtual Reality Software Engineer   New York, NY / Jan 2022 – Apr 2022

- Decreased app size by **60%** through dynamic loading and compression, improving load time by **5 seconds**
- Added application-wide localization support for **100+ new languages** and **emojis**
- Developed raycasting-based 3D algorithm to identify user focus in Virtual Reality environments

Behaviour Interactive / Software Engineer   Remote / May 2021 – Aug 2021

- Implemented client-side prediction on game states with concurrent request and error handling support
- Added 3D model caching using Unity Addressables, removing **50%** of asset load times
- Designed tools for artists and level designers, reducing development times by **75%**

Relogix / Software Developer   Ottawa, ON / Oct 2019 – Feb 2020

- Reduced development and installation times by creating an internal tool that uses **NFC** to communicate with IoT devices
- Optimized memory usage by **70%** using **Google Protobuf** to efficiently serialize structured data
- Implemented a custom encryption scheme to increase communication speed by **30%**

Projects

AR Grapher / Hack3 First Place Prize

- Created and published an Android app using **Unity** that displays mathematical graphs in Augmented Reality based on user input
- Engineered a computer algebra system in **C#** to solve multi-variable algebraic equations, increasing computation speed by **97%** relative to language built-in

Automated Proof Checker

- Developed an automated proof checker for the natural deduction **formal logic** proof theory
- Designed algorithms to scan, parse, and type-check logical input

DoxMyTech

- Built and deployed a full-stack web application using **React, Flask, and SQL** to let users analyze their social media profiles

Skills

C# / Python / C++ / TypeScript / JavaScript / SQL / C / Scala / Bash
Unity / React / WebAssembly / Redux / Protobuf / Docker / Azure / gRPC