

Casey Waldren

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My primary experience is crafting software for virtual reality systems. I have built both developer-facing SDKs and the runtimes powering them.

While navigating the stack from physical product to game code, I've worked on:

- Asynchronous, low latency services in C++
- Diagnostic UIs to quickly prototype new features
- Simulation layers to solve the lack-of-hardware problem
- Automatic QA software for hardware verification
- Serial and wireless communication protocols
- Rich plugins for Unreal Engine and Unity

Experience

Hardlight VR

SEATTLE, WA

Lead Software Engineer

September 2013 - 2018

- Architect of Hardlight's haptics runtime and API, a system for bringing meaningful haptics to consumer games with minimal programming effort
- Built shared memory bridges for low-latency communication between components to deliver real-time tracking and haptics data
- Developed algorithms to parse, calibrate, and display IMU data in kinematic models
- Evolved project from proof-of-concept to a plugin-based runtime capable of recognizing and controlling multiple pieces of hardware

Ortho Clinical Diagnostics

ROCHESTER, NY

Web Scripts Intern

May 2015 – August 2015

- Fixed multiple longstanding bugs in analyzer software using Perl and Javascript
- Saved clients measurable time and money through efficiency gains for Field Engineers, due to better diagnostics UIs

Education

UNIVERSITY OF ROCHESTER

ROCHESTER, NY

Coursework towards B.S. in Computer Science

Fall 2013 - Spring 2016

Computer Organization, Robot Construction, Artificial Intelligence, Design & Analysis of Efficient Algorithms, Computation & Formal Systems, Data Structures & Algorithms

AQUINCUM INSTITUTE OF TECHNOLOGY

BUDAPEST, HUNGARY

Applied Computer Science curriculum

Fall 2015 semester

Computer Graphics, Applied Cryptography, Android App Development, IT Entrepreneurship