

Ryan Rothweiler

Senior Software
Engineer

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EMAIL

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GITHUB

github.com/RyanRothweiler

WEBSITE

ryanrothweiler.github.io

PHONE

503.798.7873

EDUCATION

B.S in Computer Science, June 2017
Western Oregon University, Monmouth Oregon

A.A in Visual Communications, June 2013
Chemeketa Community College, Salem Oregon

WORK EXPERIENCE

TRIPP INC

MAY 2023 - PRESENT

SR SOFTWARE
ENGINEER

UNITY C#

[LINK](#)

- Drove engineering decisions balancing long term sustainability and short term feature requirements.
- Automated content creation pipeline to allow weekly delivery of new audio.
- Helped manage engineering team grow from 2 engineers to 8.
- Mentored new hires on production pipeline, debugging fundamentals, and team communication.
- Supported a live service, working with customers and customer service team discover and solve live bugs.

JAN 2018 - MAY 2023

SOFTWARE ENGINEER

- Responsible for core features including user account management, UX implementation, and user surveys.
- Wrote client side analytics system.
 - Allowed further company funding through reports generated.
 - Setup automated testing infrastructure to ensure reliability of analytics events.
- Implemented native Android service in Java to pre-download content at night.
- Managed and developed PlayStation4 version of project from start to release.
 - Communicated with Sony to fix bugs and move product through QA process.
 - Drove monthly releases to bring latest updates to PS4 customers.
 - Self managed entire project from start to release.
- Helped maintain 75+ fps throughout the entire product on all platforms.
- Shipped product on multiple platforms - Apple Vision Pro, all Meta Quest devices, PSVR1, and PSVR2.
- Worked in startup environment, adapting to changing deadlines and requirements, establishing healthy company norms, present and positive during crisis, self-driven and self-managing.

Unity Freelancer

DEC 2014 - JAN 2018

- Completed 20 contracts with 30 clients including five shipped games on Android and iOS.
- Experienced in local and online networking, custom editors and tools, mobile development, VR and AR.
- Consistent work in client communication, project management, cost / time estimates, and feasibility.
- Wrote features such as local and online multiplayer, input recording and playback system, custom physics, player controls, input mapping, and custom level editing tools.

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PROJECTS

Custom Game Engine - Beta Game Release

JUL 2015 - PRESENT

C++

[GAME](#)
[3D DEV LOG](#)

- Fully custom 2d / 3d game engine written from scratch.
- Engine utilizes no external libraries. All behavior implemented by me.
- Features GIF encoder, BMP decoder, WAV decoder, JSON read and write, strings, linked lists, immediate mode UI,
- OpenGL renderer, live code editing, and clean separation between platform and game code.
- Supports Windows, Android, and web through wasm.
- OpenGL renderer features include Physically Based Rendering, Image Based Lighting, post processing effects, and hot reloading of shaders, textures, and models.
- Utilized Android NDK and a Java layer to run C++ engine code.
- Custom MetaProgramming preprocessor which generates type data for use at runtime.
- Generic multi-threaded worker queue. Currently utilized for dynamic asset loading.

Rust Lang Projects

2023 - PRESENT

RUST

- [Simple 8086 processor parser and emulator.](#)
 - Supports most mov and jump instructions.
- [Advent of Code challenge 2023.](#)
- Budgeting app to handle private long term spending analysis.
 - Written using Tauri and Leptos.

Hotwire Robotics

JAN 2016 - PRESENT

MENTORING

JAVA

[LINK](#)

- Lead programming mentor for local high school FIRST team - Hotwire Robotics.
- Build confidence of students through software development.
- Manage code base across incoming and outgoing student developers.
- Mentor and help implement robot features. Including autonomous robot control, driver station feedback, semiautonomous robot control using sensors such as gyroscopes, limit switch, potentiometers, and vision tracking.
- Manage team of adult mentors and student programmers in high intensity and time constrained work environments.
- Inspire students to learn, and push them to grow while also keeping a fun and light hearted environment.

INTERESTS

Games as Art

- Producing games which balance art and product.
- Playing as many games as possible to find the best parts of each.
- Watching hours long youtube videos with deep analysis of single games.

Board Games

- Applying design lessons learned from board games to digital video games.
- Spending time with loved ones.

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