Ethan Vrhel

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Education

University of Washington   2020–Present
- 3.81/4.0 GPA

Experience

Undergraduate TA at University of Washington   September 2023–Present
- For CSE 341 - Programming Languages

Contract Software Engineer at Artifex Software   July 2021–Present
- Refactored Ghostscript library to use in-house XML parser over Expat

Undergraduate TA at University of Washington   January 2023–March 2023
- For CSE P 557 - Trends in Computer Graphics

Software Engineer Research Intern at MSNW LLC   July 2021–Aug 2021
- Created an API and scripting language to streamline running physics simulations

Contract Software Engineer at Artifex Software   July 2020–Sep 2020
- Developed Java interface for Ghostscript C library using the JNI
- Wrote demo PDF viewer in Java using my interface

Kumon   Sep 2019–March 2020
- Tutored elementary and middle school students and graded work

Projects

Lythium
- 2D Game Engine using OpenGL and C++, Objective-C, and Lua

Lithium
- 3D Game Engine using OpenGL and C++

MatrixUtil
- Linear algebra library with Intel Intrinsics and ARM Neon for increased performance

LScript
- Scripting language

hexview
- Cross-platform binary command line file reader

Extracurriculars, Awards & Leadership

Eagle Scout (Boy Scout Troop 751)   2013–2019
- Organized food drive for Issaquah Food Bank, collected over 1000 lbs of food

WSPTA (Washington State PTA) Game Development Competition   2018, 2019
- Created and led team for competition, programmed game engine, won Best Code twice

Piano   2008–2019
- Won Paderewski medal from American College of Musicians National Programs

Skills

Technical: Strong C/C++, Intel Intrinsics and ARM Neon, Objective-C, OCaml, OpenGL, Cocoa, Windows Subsystems, POSIX, C#, Java, Python, HTML/CSS, JavaScript, Unity, Lua

Interests: Graphics programming and optimization techniques, hardware acceleration, systems programming, programming languages