Ethan Vrhel

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2020-2024

Education

3.81/4.0 GPA Experience **Graduate TA at Oregon State University** September 2023–Present • For CS 461 - Senior Software Engineering Project **Undergraduate TA at University of Washington** September 2023–December 2023 • For CSE 341 - Programming Languages **Contract Software Engineer at Artifex Software** July 2021–December 2023 • 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++

University of Washington - BS, Computer Science

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