

**Ethan Vrhel**

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**Education**

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<b>University of Washington - BS, Computer Science</b>	2020–2024
<ul style="list-style-type: none"> <li>• 3.81/4.0 GPA</li> </ul>	

**Experience**

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<b>Graduate TA at Oregon State University</b>	September 2024–Present
<ul style="list-style-type: none"> <li>• For CS 461 - Senior Software Engineering Project</li> </ul>	
<b>Undergraduate TA at University of Washington</b>	September 2023–December 2023
<ul style="list-style-type: none"> <li>• For CSE 341 - Programming Languages</li> </ul>	
<b>Contract Software Engineer at Artifex Software</b>	July 2021–December 2023
<ul style="list-style-type: none"> <li>• Refactored Ghostscript library to use in-house XML parser over Expat</li> </ul>	
<b>Undergraduate TA at University of Washington</b>	January 2023–March 2023
<ul style="list-style-type: none"> <li>• For CSE P 557 - Trends in Computer Graphics</li> </ul>	
<b>Software Engineer Research Intern at MSNW LLC</b>	July 2021–Aug 2021
<ul style="list-style-type: none"> <li>• Created an API and scripting language to streamline running physics simulations</li> </ul>	
<b>Contract Software Engineer at Artifex Software</b>	July 2020–Sep 2020
<ul style="list-style-type: none"> <li>• Developed Java interface for Ghostscript C library using the JNI</li> <li>• Wrote demo PDF viewer in Java using my interface</li> </ul>	
<b>Kumon</b>	Sep 2019–March 2020
<ul style="list-style-type: none"> <li>• Tutored elementary and middle school students and graded work</li> </ul>	

**Projects**

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- [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 Intrinsic and ARM Neon for increased performance
- [LScript](#)
  - Scripting language
- [hexview](#)
  - Cross-platform binary command line file reader

**Extracurriculars, Awards & Leadership**

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<b>Eagle Scout (Boy Scout Troop 751)</b>	2013–2019
<ul style="list-style-type: none"> <li>• Organized food drive for Issaquah Food Bank, collected over 1000 lbs of food</li> </ul>	
<b>WSPTA (Washington State PTA) Game Development Competition</b>	2018, 2019
<ul style="list-style-type: none"> <li>• Created and led team for competition, programmed game engine, won Best Code twice</li> </ul>	
<b>Piano</b>	2008–2019
<ul style="list-style-type: none"> <li>• Won Paderewski medal from American College of Musicians National Programs</li> </ul>	

**Skills**

**Technical:** Strong C/C++, Intel Intrinsic 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