

Education	Yale University	08.2019 – 05.2023
	B.S. Computer Science (GPA 4.0)	New Haven, CT
	Coursework Data Structures, Algorithms, Systems Programming, Operating Systems, Computer Graphics, Parallel Programming, Discrete Math, Linear Algebra	
	Leadership Co-President, Design at Yale; Creative Director, The New Journal	
Experience	Software Engineer Intern	05.2022 – 08.2022
	Meta Reality Labs (Burlingame, CA)	
	<ul style="list-style-type: none">Enhanced spatial map storage to improve the scalability of the SLAM stack for Meta's <i>Presence Platform</i>. Considered device power draw and memory performance limitations.Worked on the SLAM tracking and spatial mapping team for Oculus 6DOF headsets.Used C++, Bash, adb debugging.	
	Software Engineer Intern	06.2021 – 08.2021
	Facebook (Menlo Park, CA)	
	<ul style="list-style-type: none">Developed an internal service to automatically rebalance Twine jobs and containers for stateful services. Improved fault tolerance and machine utilization, freed up to 40k machines across all data centers. <i>Twine</i> is Facebook's cluster management system.Used Python, Thrift, SQL, async Twine API.	
Projects	Lead Developer	06.2021 – 08.2021
	Yale Peabody Museum (New Haven, CT)	
	<ul style="list-style-type: none">Led work on COPISClient, a desktop app which controls a imaging system for photogrammetry. Rewrote programmable OpenGL pipeline with shaders, reducing frame render times by >80%.Redesigned GUI. Designed toolpath generation, ViewCube navigation, and scene object picking.Used Python, C++, OpenGL, GLM, GLSL. Project link.	
	Watercolor paint simulation	2022
	<ul style="list-style-type: none">Developed real-time watercolor simulation in C++ with pigment flow effects based on the SIGGRAPH paper <i>Curtis et al. 1997 Computer-Generated Watercolor</i>. Implemented edge darkening, backruns, blooming, and granulation. Built staggered grid, used forward Euler. Project link.	
	Distributed ray tracer & animation	2021
Skills	<ul style="list-style-type: none">Developed ray tracer and video animation in C++. Implemented diffuse/Phong shading, mirror/glossy reflections, refractions/fresnel effects, soft shadows, and supersampling anti-aliasing.Implemented bounding volume hierarchy (BVH), .OBJ loading. Final video link.	
	VR math visualizations	2019
	<ul style="list-style-type: none">Developed an interactive WebVR experience to visualize 3D math surfaces in the <i>DLMF</i> dataset.Demod at the SIGGRAPH 2018 BOF session "<i>Immersive Visualization for Research, Science and Art</i>". Project link.	
	WebVR bulletin board	2019
	<ul style="list-style-type: none">Developed Bulletin, a WebVR bulletin board for anonymous messages. Used JavaScript, Python.Won Best Gaming/VR Hack at YHack 2019, out of 140+ projects & 400+ participants. Project link.	
	Coding Tools	C++, C, Python, Java, Bash, Thrift, Racket, Bash — Learning Asm, JS, HTML/CSS UNIX, OpenGL, Figma, Adobe Creative Cloud (Illustrator, Photoshop, InDesign)