Cambridge, MA ch4@mit.edu

Experience	
Aug'23-pres	Graduate Research Assistant
	at The MIT Media Lab Future Sketches Group
	Funded graduate research assistant and master's candidate. Develops a practice and tools aimed at facilitating the creation of coded art.
May'22-Aug'23	Tools developer
	at Nvidia
	Worked on simulation engine Omniverse. Optimize processes and algorithms, such as the underlying C++ math library. Builds tools in python for creation and remote collaboration in VR.
Аид'20-Feb'22	Software Engineer
	at Looking Glass Factory
	Developed and maintained core components of a cross-platform C++ production app, debugging and fixing deficiencies. Created a tool to allow customers easily edit and upload 3D portrait phone photos and videos to the display. Creating novel rendering techniques for the Looking Glass holographic display. Investigating and prototyping new ML research for the display, e.g. contextual infill. On patent US-11425363-B2 for developing novel methods and technologies.
May'17-Aug'20	Freelance Unity Programmer
	at Beside Digital of MAS, Deeplocal Inc., and Tin Drum Inc.
	Created Unity driven software for real-time high-end virtual experiences, integrating cutting-edge hardware and sensor data to create novel interactions. Developed an AR iOS app among other components of an internationally exhibited AR short. Created a game for Google's Internet Awesome Day.
MAY'19-AUG'19	Research Assistant
	at CMU's Human Computer Interaction Institute
	Worked in Professor Jessica Hammer's lab, on Verizon-funded research into the potentials of virtual reality and 5G technology.
Sep'18-Jul'19	Creative Technologist at the Frank-Ratchye STUDIO for Creative Inquiry
	Advised and created templates for students to use to create software art and games. Wrote graphics programs, including augmented reality mobile apps in Unity, web apps in Glitch, GLSL shaders and OpenFrameworks apps. Worked with artists hosted at the STUDIO to develop their pieces as well as worked on personal creative practice.

EDUCATION

MAY '18 Carnegie Mellon University, Pittsburgh, Pennsylvania Bachelor of Computer Science and Arts with a minor in Media Design

Select Performances, Fellowships, and Talks

- NEA Funded Fellowship at Carnegie Mellon University as a part of the Open-Source Software Toolkits for the Arts (OSSTA) initiative to develop an open-source GLSL editor tool for artists in '21-'22.
- Snap Inc., '20 awarded a grant to be a part of their Creator Program.
- Recurse Center, awarded a grant to attend from August '19 to October '19. Co-created an AR livecoding WebGL app, lead a series of workshops on GLSL shader programming, learned about category theory, and created a mischievous email server.
- Performs livecoded visuals and music since '17, as a founder of Livecode Pittsburgh and a member of Livecode NYC, writes shaders set to algorithmic music on stage as a performance, in places such as the Whitney, Electric Forrest Festival, Github Satellite Conference, and Mutek Nexus.
- Lectured and Led Workshops at places like Carnegie Mellon University, Duke University, University of Limerick, MIT, NYU and others. Gave a keynote at UMass Amherst, gave a commencement speech at Parsons.