

Char Stiles

Graphics Programmer &
Researcher

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EXPERIENCE

- JAN '19 JUN '20 | Freelance GLSL Shader and Ray Marching Teacher at Duke University, Carnegie Mellon University, Massachusetts Institute of Technology, New York University, Parsons School of Design, Recurse Center, and CODAME
Created and taught part or in full a 4 part workshop series to introduce non-graphics programmers to learn how to write a small renderer in a single shader called a ray marcher. The series includes how to light the scene, use camera movements, and how to make transparent objects that refract light.
- SEP '18-OCT '19 | Research Associate at Carnegie Mellon University Robotics Institute
Created an augmented reality iOS application in Unity and deployed it to Test Flight. Implemented an on-device image classifier using CoreML. Worked on a small team lead by Jessica Hodgins and James Duesing.
- SEP '18-JUL '19 | Creative Technologist & Fellow at the Frank-Ratchye STUDIO for Creative Inquiry
Advised and created templates for students to use to create software art. 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.
- FEB '18-JUL '18 | Content Technology Intern at Nvidia
Worked on a small team lead by Omer Shapira to create a Node.js web app for an (unreleased) on-stage demo about ray tracing. This entailed developing a 3D drawing tool in Javascript and WebGL, as well as helping iterate on the story of the demo.
- MAY '16-AUG '16 | Researcher at the Community Robotics Education and Technology Empowerment Lab at Carnegie Mellon University Robotics Institute
Worked with their EarthDev Team, lead by Randy Sargent from Google Earth, on the Explorables project to create data visualizations with maps to convey compelling stories about the environment and humanity.

EDUCATION

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

SKILLS

- Programming: C++, WebGL, GLSL, OpenGL ES, HTML/CSS, SML, PYTHON, JAVASCRIPT, P5.JS, BASH, GIT
- Software: Adobe CC, Agisoft Photoscan, MatLab, Maya, Rhinoceros/Rhinocam, Unity, Visual Studio/Code, Xcode
- Prototyping: 3D printing, CNC Routing, lasercutting, welding, woodworking

INTERESTS AND ACTIVITIES

- Attended the Recurse Center, a self-lead residency for programmers, from August '19 to October '19. Co-created an AR livecoding WebGL app in Glitch, lead a series of workshops on GLSL shader programming, learned about category theory, and created a mischievous email server.
- Performs livecoded visuals and music, as a founder of Livecode Pittsburgh and a member of Livecode NYC, writes shaders set to algorithmic music on stage as a performance.