Char Stiles

*Graphics Programmer
& AI Researcher*

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EXPERIENCE

Jul'20-Aug'20	**Snap ML Resident** at Snap Inc. Creating and training an ML model using pytorch to use in an augmented reality Snapchat filter. Owning a filter from design to execution but working with the engineering team to create an efficient and unique filter.
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 lean 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.
May'17-Mar'20	**Freelance Unity Programmer** at Beside Digital of MAS, Deeplocal Inc., and Tin Drum Inc. Created Unity driven software for kiosks, including a game for Google's Internet Awesome Day, and an AR photo booth at Verizon's 5G exhibition. Developed an AR iOS app among other components of an internationally exhibited AR short called Tartuffe. Worked on AR/VR pieces for St.Vincent and Crystal Castles.
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.
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.

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.