Alexa Schor

alexa.schor@yale.edu | github.com/alexaschor | alexaschor.com

EDUCATION

Yale University, Computer Science (B.S.)
New Haven, CT | Sep 2020 - May 2024 | 3.96 GPA (major) | 3.85 GPA (overall)

PUBLICATION

A Shape Modulus for Fractal Geometry Generation, *Proc. Symposium on Geometry Processing, 2023*
A.L. Schor and Theodore Kim | 2023 | paper | code release | conference website

- First author on computer graphics paper introducing a fractal geometry control method for visual effects.
- Novel method outperforms previous SoTA by orders of magnitude and produces higher-quality visual results.
- Gave paper talk at the Symposium on Geometry Processing 2023 in Genoa, IT. Paper was published in a special issue of *Computer Graphics Forum* (Volume 42, Issue 5).

EXPERIENCE

Undergraduate Researcher, Yale Computer Graphics Group
New Haven, CT | June 2021 - present | group website | mentor website

- Performed computer graphics research with Dr. Theodore Kim, focusing on fractal geometry generation. My work has comprised two capstone theses, two directed research courses and a Yale research fellowship.
- Worked to build generative fractal geometry techniques to efficiently produce directable visual effects beyond what could be crafted by hand.
- Wrote, published, and presented the above-listed paper at Eurographics SGP.

Software Engineer Intern, Aviation Graphics Technologies Team @ Garmin Intl
Olathe, KS | Summers 2022, 2023 | Garmin website

- Worked in a team developing automated testing tools to assist in FAA certification of an embedded graphics driver to be used in safety-critical avionics applications.
- Researched, designed, and implemented custom optimization-based testing tooling, incorporating static and dynamic analysis of 500+-KLoC safety-critical embedded graphics codebase.
- Built familiarity with industry-standard source control and project management software systems.

Software Engineer, PhET Interactive Simulations @ CU Boulder
Boulder, CO | Aug 2019 - Oct 2020 | project website

- Worked in a team to develop interactive physics simulations for use in classrooms.
- Wrote simulation and display software, working in a very large codebase shared by dozens of other teams, projects, and simulations.

SELECTED COURSEWORK

Data & Information Vis. - CS546
- Built interactive visualizations for a variety of datasets, focusing on both technical and human factors.

Physics Simulation - CS679
- Implemented interactive soft-body and smoke simulations in C++ and OpenGL.

Adv. Topics in CG - CS479
- Built several procedural modeling and texturing systems in Python and C++.

EXTRACURRICULAR

Trans@Yale Board
New Haven, CT | Fall 2021 - present | organization webpage

- Manage communication, logistics and university-internal web infrastructure for the Trans@Yale student organization, which connects transgender students at Yale with university and local resources and works with Yale administration to build more inclusive policies and practices.

IvyHacks Conference and Hackathon
Online | Fall 2020 | program website

- Worked with two students from Brown University to build a realtime eye-contact correction layer for video calls.