

Daren Hua

[REDACTED], New York, NY, [REDACTED]

github.com/darenhua | [LinkedIn](#)

EDUCATION

Hamilton College

B.A., Majors: Computer Science and Economics

Clinton, NY

Expected May 2025

SKILLS

Languages: JavaScript, Python, MATLAB, C, HTML, CSS, Sass, GLSL

Libraries: React.js, React Native, material-ui, Sanity.io, three.js, GSAP, Pandas, Requests, Matplotlib

Software: Photoshop, Git, Autodesk CFD, Figma, Blender, Premiere, Fusion360

SOFTWARE PROJECTS | Portfolio available at <https://darenhua.netlify.app/>

Personal Website Development

New York, NY

Utilized: HTML, CSS, three.js, GSAP, GLSL, Blender

June 2021 - July 2021

- Built a personal website by applying experience in 3D art and web development. Used Blender and three.js to model, animate, and render assets. Created custom video shaders with GLSL and text animations with GSAP. Integrated finite state machine to manage webpage state.

Autonomous Driving Simulation Platform

New York, NY

Utilized: MATLAB, MATLAB App Designer

February 2020 - June 2021

- Developed two applications for the MATLAB App Store for participants in the High School Autonomous Vehicle Competition (HSAVC) to test motor controller algorithms in a simulated environment.
- Created state-driven user interface with MATLAB App Designer to allow users to input variables modeled from the HSAVC car i.e.: camera FOV, starting angle, and on-board potentiometer gain. Applied bicycle kinematics to simulate virtual car's motions.
- Presented project to Mathworks and at the 2021 IEEE Integrated STEM Education Conference.

Eleanor Roosevelt High School Remote Scheduler (<https://darenhua.github.io/erhs-schedule/>)

New York, NY

Utilized: HTML, CSS, JS, Figma

September 2020 - October 2020

- Designed and created a schedule organizer web page for peers to track changes made to virtual classes and Zoom log-ins by matching the current local datetime with the monthly class schedule uploaded as JSON to continuously update the student's current class and Zoom log-ins.

Roosevelt Racers, F1 in Schools (<https://www.rooseveltracers.com/>)

New York, NY

Utilized: Autodesk Fusion360, Autodesk Flow Design, Autodesk CFD

October 2017 - April 2020

- Simulated aerodynamics of model racecar using Autodesk CFD and Autodesk Flow Design. Utilized drag-coefficient and velocity/pressure visualizations to create iterative reports for team design review.
- Generated G-code with Fusion360 for CNC manufacturing of the model racecar.

EXTRACURRICULAR & VOLUNTEER EXPERIENCE

The Monitor; Signature Style, Web Developer

September 2021 - Present

Utilized: React.js (hooks), Sanity.io, react-router-dom, material-ui, Git (<https://thehamiltonmonitor.netlify.app/>)

- Designed and developed websites for student organizations utilizing Sanity.io as a headless CMS for newspaper editors to upload articles. Made filtered AJAX requests to Sanity database with GROQ query.
- Implemented Material UI with CSS overrides for a quick frontend prototype and programmed 3 custom post schemas to represent article data.

Chinatown Partnership Local Development Cooperation, Intern

July 2020 - August 2020

- Promoted local economic recovery efforts by coordinating with 100+ small businesses to update and maintain a public database of business hours and services, distributing PPE supplies to frontline workers, constructing outdoor seating areas, and overseeing social media content creation.