

# Kevin Chen

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github.com/inchkev

## EDUCATION

### Yale University

Bachelor of Science, Computer Science, GPA 4.0/4.0

New Haven, CT

Aug 2019 – May 2023

**Relevant courses** Data Structures, Algorithms, Systems Programming, Computer Organization, Artificial Intelligence, Computer Graphics, Discrete Mathematics, Linear Algebra & Matrix Theory

**Extracurriculars** VP of Engineering of UX Society at Yale; Design Chair of Yale Computer Society (y/cs)

## EXPERIENCE

### Facebook

Software Engineering Intern

(Remote) Menlo Park, CA

Jun 2021 – Present

- Incoming SWE intern on the Algorithmic Optimization team.

### Yale Peabody Museum of Natural History

Software Engineer ([GitHub](#))

New Haven, CT

July 2020 – Present

- Developed desktop app which controls a multi-camera photogrammetric 3D reconstruction system.
- Integrated programmable OpenGL pipeline and removed all fixed-function calls to allow for graphical flexibility, implemented GPU instancing to reduce draw calls, reduced frame render times by over 80%.
- Implemented pub/sub & MVC design and docstring conventions to allow for extensibility and maintenance.
- Leveraged knowledge in Git, Python, OpenGL, OOP; utilized wxPython, numpy, GLM, GLSL shaders.

Software Developer Intern

June 2020 – July 2020

- Implemented 3D viewport by researching CAD paradigms and FOSS to allow for an intuitive experience.
- Practiced Agile and Scrum in 1-2 week sprints in a team of 3 developers.
- Leveraged knowledge in Git, Python, OOP; utilized wxPython, OpenGL, C++, Perl.

### Yale University

Computer Science Teaching Assistant

New Haven, CT

Jan 2021 – Present

- Undergraduate Learning Assistant for CPSC 223, Data Structures and Programming Techniques.
- Held 6+ hrs/week office hours, helped undergraduates on course assignments and data structures topics.

### Source Development Hub

Data and Engineering Intern

(Remote) New Haven, CT

June 2020 – Present

- Designed a data aggregation platform to process housing program and subsidy records from unstructured datasets; created an online database of affordable housing for the Connecticut Department of Housing.
- Designed, developed, and tested Python Pandas scripts; eliminated manual processing and inefficiencies due to human error by automatically parsing and geocoding 10,000+ unstructured addresses into SQL.

### NIST Information Technology Laboratory

VR Research Intern ([website](#))

Gaithersburg, MD

June 2018 – Apr 2019

- Developed an interactive virtual reality graphics website to represent 180+ 3D surfaces in the DLMF dataset; used A-Frame, THREE.js, and physics libraries to enable VR controllers to manipulate 3D models.
- Awarded Outstanding Poster Presentation award, work presented at SIGGRAPH 2018 BOF session.

## PROJECTS

### Ray Tracing Renderer

Computer Graphics

- Wrote ray tracer in C++. Implemented diffuse and Phong shading, mirror and glossy reflections, refractions and fresnel effects, soft shadows, jittered supersampling, and a bounding volume hierarchy (BVH).

### Bulletin VR ([GitHub](#))

Social WebVR

- Developed VR website using A-Frame and THREE.js that allows users to post anonymous transcribed messages on a virtual bulletin board to tackle social anxiety; inspired by campus message boards.
- Won the Best Gaming/VR Hack at YHack 2019, out of 140+ submissions and 400+ participants.

## SKILLS

### Languages

C++, C, Python, Java, JavaScript, R, Scheme, HTML, CSS

### Technologies

UNIX, Git, OpenGL/GLSL, wxWidgets, Android Studio, LaTeX, Illustrator, InDesign, Fusion 360