Kevin Chen

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EDUCATION

Yale University — New Haven, CT

Bachelor of Science, Computer Science, GPA 4.0/4.0 — *Aug 2019 – May 2023*

Relevant courses Data Structures, Algorithms, Systems Programming & Computer Organization, Advanced Topics in Computer Graphics, Discrete Mathematics, Linear Algebra & Matrix Theory

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

EXPERIENCE

Peabody Museum of Natural History — (Remote) New Haven, CT

Project Lead Developer (GitHub) — *July 2020 – Present*

- Led development of desktop app which controls a multi-camera photogrammetric 3D reconstruction system; led team with one other developer, articulated project goals and scope, held accountability.
- 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.
- Implemented viewport orientation cube controls and contextual property panel; redesigned general UI.
- 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.

Source Development Hub — (Remote) New Haven, CT

Data and Engineering Intern — *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 — Gaithersburg, MD

VR Research Intern (website) — *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 virtually manipulate 3D models; developed interactive demoes for SIGGRAPH BOF presentation using JavaScript.
- Awarded the 2018 Outstanding Poster Presentation award, out of 30+ research projects; work presented at SIGGRAPH 2018 BOF session "*Immersive Visualisation for Research, Science and Art.*"

NIST Information Technology Laboratory — Gaithersburg, MD

Research Intern (publication) — *Jan 2016 – June 2017*

- Developed algorithms to translate 1300+ Mathematica formulae to LaTeX using Python; translated the entire Wolfram eCF Continued Fraction dataset to provide MathML formulae representations to the public.

PROJECTS

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.

Sign In App *(GitHub)* — *Android data processing*

- Developed an Android schedule tracking app, processing 1,000+ student entries and reducing sign-in times by 50%; proposed and deployed solution to ease library staff; used Android Studio, Java, HTTPClient, ADB.

SKILLS

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

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