Rebecca Feng

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Skills

Languages: Python, C++, GLSL Shaders, Java, C, JavaScript, Typescript, HTML, CSS, Linux/Unix Command Line

Libraries: Maya Commands, OpenMaya, PyQT, NumPy, SciPy, Node.JS, Three.JS, React.JS, Vite.JS, WebGL

Software: Autodesk Maya, Visual Studio Code, XCode, Vim, Github, ZBrush, Unity, Blender, Adobe 3D Substance Painter, Adobe Creative Cloud, Google Drive, Microsoft Office

Education

University of California, Berkeley, BA in Computer Science and Astrophysics May 2021 – May 2025

- GPA: 3.677/4.0 (Transcript)
- **Relevant Coursework:** Computer Graphics and Imaging; Computer Vision; Machine Learning; Computational Photography; Data Structures and Algorithms; 3D Modeling and Animation; Game Design and Development; Discrete Differential Geometry; Abstract Linear Algebra; Mathematical Methods in Physics

Experience

Researcher, Nerfstudio @ Berkeley Artificial Intelligence Research – Berkeley, CA February 2024 – Current

- Developed an artist-friendly tool enabling users to composite Neural Radiance Field scenes with rendered animation and VFX in Autodesk Maya, utilizing matrix transformations and file-writing.
- Included support for .ply files to the plug-and-play Gaussian Splatting demo within the Viser library.
- Developed a Python API within Viser to simulate lighting utilizing skills under full stack software engineering
- Tools Used: Python, Javascript, React.JS, Three.JS, Maya Commands, Open Maya, NumPy, Linear Algebra

Head Course Instructor, UCBUGG: 3D Modeling and Animation – Berkeley, CA July 2022 – Current

Course Instructor July 2022 - June 2024 Head Instructor June 2024 - Current

- Developed a curriculum teaching students the whole pipeline of 3D animation with industry-standard software
- Mentored a short-film production by teams of four and helped reconstruct a new course website
- Tools Used: Autodesk Maya, Renderman, ZBrush, AfterEffects, Linux, React.JS, Three.JS, Github

Student Volunteer, 2024 ACM SIGGRAPH - Denver, CO July – Aug 2024

- Assisted in organizing and managing conference sessions, workshops, and panel discussions.

Treasurer, 3D Modeling and Animation at Berkeley - Berkeley, CA July 2023 – Current

- Tracked budgets, expenses, and secured funding for industry-standard 3D software programs

Projects

Steve Bobs Mesh Painter 2.1 *Apr - May 2024*

- Created an interactive app as a team where users can paint on meshes and their UV maps and export as textures.
- Implemented raycasting, main code framework, UI elements, and a WebGL display.
- Project Showcase Winner out of 80 teams in Sp24 Computer Graphics and Imaging course
- Tools Used: C++, HTML, CSS, JavaScript, Three.JS, Node.JS, Vite.JS, WebGL, GLSL Shaders

Physics Based Pathtracer *Mar 2024*

- Created a direct and global illumination raytracer in C++ using various techniques in raytracing such as Monte-Carlo estimation, Bounding Volume Hierarchies, Russian Roulette, and Adaptive Sampling,
- Implemented a microfacet model to render isotropic rough conductors
- Tools Used: C++, HTML, CSS

Additional Experience And Awards

Intro to Astronomy Student Instructor: Under Dr. Ramanakumar Sankar Su24 and Prof. Alex Filippenko Fa24

Science Ambassadors Scholarship Runner Up 2021: 3rd out of 10,000 women in STEM participants for animating and writing an educational video on the physics behind quicksand