Raymond Feng

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Science, Philadelphia, PA *Expected May 2026*
Candidate for Bachelor of Science in Engineering
Major: Digital Media Design   GPA: 3.31/4.00
Relevant Coursework: Data Structures and Algorithms; Calculus II; Computational Linear Algebra; Interactive Computer Graphics; 3D Modeling; Human-Computer Interaction; VR for Artists

SKILLS

Languages: Java, OCaml, JavaScript, HTML/CSS, Python, C#, C++, GLSL, HLSL
Tools: Maya, Blender, Unreal Engine 5, Visual Studio Code, Unity, Jupyter Notebook, Photoshop, After Effects, Substance Designer, Zbrush
Frameworks & Libraries: React, Node.js, QT, OpenGL, Tailwind CSS

PROJECTS

Mini-Minecraft *December 2023*
· Created a Minecraft-based 3D voxel game engine in C++ and OpenGL in a team of 3.
· Designed and implemented procedurally-placed assets, perlin noise-based cave systems, and animated post-processing effects.
· Additionally responsible for creating sin function water waves, efficient terrain rendering using a Minecraft-like chunk system, and ambient occlusion.

FamilyHub *December 2023*
· Collaborated in a team of 4 to design and create a full-stack Facebook-like web application with a responsive, seamless, and intuitive user interface.
· Conducted thorough user research to identify and address design needs in the target user base.

Half-Edge Mesh Modifier *November 2023*
· Built a C++ and OpenGL program to modify 3D objects using a half-edge data structure that allows users to modify faces, edges, and vertices and input custom .obj files.
· Incorporated Catmull-Clark subdivision, extrusion of faces, face triangulation, and mesh skinning to allow for rigging of custom models.

EXPERIENCE

Children's Hospital of Philadelphia | Game Developer Intern, Philadelphia, PA *May 2023 – Present*
· Developed an inclusive and accessible educational game using Unity and C# specifically tailored for children with Down's syndrome, promoting understanding of assent in research studies.
· Collaborated with a multidisciplinary team of psychologists, special educators, and researchers to ensure the game's content and interface met the unique needs of patients and caretakers.

Engineering Summer Academy at Penn | Residential Teaching Assistant, Philadelphia, PA *July 2023*
· Executed engaging lessons in 3D modeling using Autodesk Maya, introducing 30+ high school students to fundamental concepts and techniques.
· Provided hands-on guidance and personalized assistance to students during individual and group projects.
· Implemented and executed exciting group activities, icebreakers, and outdoor activities using budgeting and planning skills.

LEADERSHIP/EXTRACURRICULARS

UPGRADE | Vice President, Philadelphia, PA *September 2022 – Present*
· Designed and implemented a character for an upcoming gacha game in Unity and C#.
· Collaborated with team of 30+ to create concept art and assets for an upcoming minigame collection.
· Competed in UPGRADE's game jam, making UI, character art, and background assets to create a functional game within a 24-hour period in a team of 4. Won the overall award for most fun game.

Pencilbite Studio | Background Artist, Philadelphia, PA *September 2023 – Present*
· Created visually stunning concept art for an upcoming animated short, "Thesis Defense".
· Designed a variety of background assets to fit the theme of an alien planet, consulting with the production team to deliver high-quality artwork within project timelines.
· Collaborated with the art directors and animation team to create cohesive backgrounds that adhere to aesthetic guidelines.