Eli Asimow

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EDUCATION

University of Pennsylvania   May 2026
MSE, Computer Graphics and Game Technology

New York University   May 2021
BS, Computer Science, with a Minor in Game Design

SKILLS

Languages: C++, Cuda, WebGPU, GLSL, C#, Java, JavaScript, Lua, MEL, Python
Tools & Frameworks: OpenGL, Unity, Unreal Engine, Maya, Arnold, Houdini, Blender, Substance Painter, SQL, Git

SELECTED PROJECTS

CUDA Animation Path Tracer   September 2025 - October 2025
C++, CUDA, Solo Project   *GitHub Link*
- **Pixel Light Rays:** Parallelized the scene lighting process with CUDA, computing intersections for tens of thousands of rays simultaneously against diffuse, specular, emissive, and refractive surfaces.
- **GLTF Animations, Skinning and Binding:** Utilized the Tiny-GLTF library to import GLTF scenes as input parameters. Wrote interpolator to match vertices to bone motion with linear blend skinning at each frame.
- **Bounding Volume Hierarchies:** Optimized mesh intersection tests with a BVH binary tree of bounding boxes. This enabled renders of advanced, high-polygon scenes, improving performance exponentially, up to a measured 350%.

TreeVigorate: A Tool for Maya Artists   March 2025 - May 2025
C++, MEL, Group Project   *GitHub Link*
- **Tool Development:** Implemented *Interactive Invigoration: Volumetric Modeling of Trees with Strands*, a 2024 SIGGRAPH paper from a team of Purdue researchers, as an accessible Maya tool.
- **Naturalistic Growth:** Automated procedural growth pattern; tree species and environment parameters make each instance unique.
- **Complex Mesh Management:** Merged the "strands" of the tree's branches into one cohesive trunk mesh using a novel union of Position Based Dynamics and Delaunay Triangulation.

PROFESSIONAL EXPERIENCE

Teaching Assistant   Jan 2025 – Present
Teaching Assistant   *University of Pennsylvania*
- **5600, Interactive Computer Graphics:** Supported students' learning of graphic fundamentals. Collaborated with the class instructor and fellow teaching assistants to write midterms, grade projects, and tutor students.
- **5680 Game Design Practicum:** Nurtured students' designing brains through game jam assignments and feedback sessions. Built introductory Unreal and Unity assignment frameworks for new students.

Veeva Systems   June 2021 – June 2024
Software Engineer   *Pleasanton, California*
- **Back End Programmer:** Led development of Veeva's clinical trial study startup application, delivering quarterly features over three years to streamline the process for new pharmaceuticals.
- **Mentor:** Mentored three new associate software developers. Familiarized them with professional coding environments, led daily check-in meetings, and taught clean programming principles.

Baobab Studios   May 2019 - August 2020
Unity Software Engineer Intern   *Redwood City, California*
- **Player Choice Rollback Tool:** Constructed a cut scene playback tool for navigating player choices. This tool became a staple of Baobab's workflow, substantially streamlining the studio's process for QA and critique work on the *Baba Yaga* project.
- **Emmy Winning:** Credited for engineering work when *Baba Yaga* was recognized at the 2021 Daytime Emmy Awards as the winner of the *Outstanding Interactive Media* category.