NICOLAS NEBEL

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EXPERIENCE

Epic Games — Summer 2020
Unreal Engine Programmer Intern

- Working with the sequencer team again, driving development of a new sequence and animation related editor feature for UE5

UCSD Immersive Visualization Lab — git.io/JfzE7 | Winter 2020
Software Developer

- Developed a cinematic volumetric renderer for medical scans
- GPU-optimized, supports transfer functions and volumetric, diffuse, and clearcoat materials; see more details and some renders in my presentation here: git.io/JJYSK

Epic Games — Summer 2019
Unreal Engine Programmer Intern

- Worked with the sequencer team and related artists on UE4's cinematics tools
- Renovated and added to the curve editor's toolset, developed new spline generation tools, and added options for animated attachments to preserve the world position
- Some of my work was shown in the context of virtual productions (like Fortnite events) in a stream with a senior cinematics artist at Epic: youtu.be/j5OYgBputvs
  - On the curve editor tools (1:26:25): "This is awesome for camera work if you're trying to fine tune the camera, especially if you get into shakes, like camera shakes"
  - On spline generation (1:52:10): "It's awesome ... you can basically do a series of very complex [spline] curves and stuff, very quickly"

EDUCATION

UC San Diego — Class of 2022

- Computer Science (B.S.), GPA: 3.65, Member of IEEE and ACM
- Took CSE 167: Computer Graphics I & CSE 168: Computer Graphics II

PROJECTS

CSE 168 Final Project — git.io/JJY9G

- Implemented Disney Animation Studio's "Practical and Controllable" hair model using Intel Embree's ray tracing framework

Vive Filmmaker (SDHacks) — git.io/fxoVy

- Led team to make a VR tool using Unity to help filmmakers film VFX/3D animations in a virtual scene with a virtual camera

SKILLS

Languages: C++, Java, Python, JavaScript, C#

Technologies: Unreal Engine, Unity3D, OpenGL, Vukan, Embree, OpenCV