

SIGGRAPH Virtual Production Lab: Student Experience Research Report

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Overview

This report summarises student experiences participating in the SIGGRAPH Virtual Production Lab, drawing on survey responses and qualitative feedback from a diverse cohort. The program aimed to provide hands-on experience with cloud-based virtual production tools, with a focus on accessibility, skill development, and identifying barriers to entry.

Student Backgrounds and Motivations

Participants represented a range of creative and technical backgrounds, including film, animation, game development, art direction, and programming. Many had prior experience with 3D tools, but most were new to cloud-based virtual production environments. Students were motivated by:

- A desire to integrate virtual production into their creative practices, such as filmmaking, animation, and set design.
- The opportunity to gain practical skills in real-time workflows, particularly using Unreal Engine.
- Aspirations to pursue roles such as Virtual Production Supervisor, Unreal Engine Expert, and Pre-visualization Artist.

Access, Infrastructure, and Barriers

Hardware & Internet Access

• Most students had personal computers capable of running 3D software, but several noted that high-performance hardware is often a barrier, especially for independent learners or those without institutional support.

• Internet reliability varied: some students reported always-reliable connections, while others experienced occasional lag or instability, which impacted their experience in the cloud environment.

Key Barriers Identified

- Transition from Training to Employment: Students found it challenging to move from educational experiences into industry roles, citing a lack of clear pathways and limited opportunities for hands-on, portfolio-building work.
- Hardware Limitations: The cost and accessibility of powerful computers for virtual production remain significant obstacles, particularly for those wishing to practice outside of formal settings.
- Scheduling and Flexibility: Many training sessions occurred during standard work hours, making participation difficult for those with jobs or other commitments. Students suggested more flexible or evening options.
- Collaboration Opportunities: While the cloud environment enabled individual work, students felt there was limited opportunity for meaningful collaboration or peer-to-peer interaction during the project.

Experience with the Virtual Studio Cloud

Setup and Usability

- Most students found the setup instructions clear or somewhat clear and were able to access the virtual workstations successfully.
- Performance was generally rated as good or excellent, with praise for the speed and responsiveness of the remote systems, especially compared to personal hardware.
- Some technical hurdles included logging into multiple services, managing assets, and occasional UI issues (e.g., Parsec logo overlay).

Software Navigation

- Students with prior experience in Unreal Engine or similar tools found the software easy to navigate, while beginners faced a steeper learning curve.
- Minor internet-related issues (lag, freezing) were reported, particularly when home connections were unstable.

Collaboration and Community

- Direct collaboration was limited, either due to the project structure or lack of shared resources (e.g., shared folders, Discord channels).
- Students expressed a desire for more structured opportunities to interact, share inspiration, and work together in real time.

Highlights and Positive Feedback

- Accessibility: The cloud-based approach significantly lowered the barrier to entry, allowing students to work on high-end projects without needing expensive hardware.
- Performance: Students appreciated not having to worry about local storage, overheating, or slowdowns, and found Parsec effective for remote access.
- Skill Development: The program provided valuable exposure to industry-standard workflows and tools, helping students build confidence and practical skills.

Suggestions for Improvement

- Enhanced Collaboration: Implement shared drives, communication channels, or group tasks to foster peer interaction and collaborative learning.
- Flexible Scheduling: Offer sessions at varied times, including evenings or weekends, to accommodate working students.
- Pre-Session Preparation: Provide more lead time and preparatory materials before starting intensive projects.
- Technical Support: Streamline asset access and account management to reduce setup friction, and address minor UI or connectivity issues.

Conclusion

The SIGGRAPH Virtual Production Lab provided a valuable, accessible introduction to virtual production for students from diverse creative backgrounds. The cloud-based model was widely praised for its ability to democratize access to high-end tools, though challenges remain in fostering collaboration, supporting career transitions, and ensuring reliable infrastructure. Addressing these areas will further enhance the learning experience and help bridge the gap between training and professional practice.