

Rishi Pandey

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EDUCATION

University of Illinois Urbana Champaign | *Champaign, IL* May 2021
Bachelor of Science, Major: Industrial Engineering, Minor: Computer Science GPA: 3.32

Universidad Pontificia Comillas | *Madrid, Spain* Jan 2019 - May 2019
Engineering Semester Abroad

SKILLS

Technical: C++, Python, Unreal Engine, OpenGL, GLSL, HLSL, Shotgun, PyQt/PySide, OpenCV, Unity, ARKit, Flask
Language: Spanish, Hindi

EXPERIENCE

i-Jet Lab (Brunswick Corporation) | *Champaign, IL* May 2020 - Present
Computer Graphics Software Engineering Intern

- Created a custom pipeline for importing CAD models with PBR materials into Unreal Engine using Python/PySide
- Automated lighting/layout using Python for specialized render pipeline to generate ray-traced synthetic image datasets
- Integrated and scripted HLSL post-processing shaders for simulating autonomy perception sensors and camera lenses
- Developed, deployed, and maintained a customized version of Unreal Engine for Brunswick's industrial design team
- Engineered immersive VR visualization and configuration experience for Brunswick boats in Unreal Engine and C++

Zero VFX | *Chicago, IL* May 2019 - Sept 2019
Pipeline Technology Intern

- Developed tools to assist in feature film pipeline integration, specifically between Shotgun and Photoshop
- Experimented in Unreal to learn how real-time rendering impacts virtual production filmmaking and visual effects
- Assisted in managing matte-painting artist requests for visual effects software using Python and pipeline toolkits

Fiserv | *Chicago, IL* May 2019 - Aug 2019
IT Architecture Intern

- Built full-stack status system for data reporting automation by utilizing Python and SQL database technologies
- Helped set up big data architecture for elegant solutions to financial data management using cutting edge techniques
- Collaborated with the data engineering team to incorporate efficient real-time analysis

NetMath | *Champaign, IL* Jan 2018 - Nov 2018
3D Math Mentor

- Mentored students studying university-level multivariable calculus using Mathematica and Matlab tools
- Automated processes for efficient grading on a 3D Math e-learning platform using Python web frameworks

CS 125 | *Champaign, IL* Aug 2018 - Dec 2018
Java Course Assistant

- Created Android applications to teach students how to create user interfaces and develop code for mobile platforms
- Guided computer science students in learning to construct efficient algorithms in Java

ACTIVITIES

Personal Projects | *Champaign, IL* Jan 2018 - Present

- Designed environments, lighting, and custom tools for a virtual production animated short film in Unreal Engine
- Leveraged computer vision to create a pose-estimation algorithm to help find a mobile solution to motion capture
- Developed a ray tracer in C++ implementing multiple materials and a basic cinematography system

Siggraph | *Champaign, IL* Aug 2020 - Aug 2020
Student Volunteer