ANAV CHAUDHARY

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EDUCATION

PURDUE UNIVERSITY — **West Lafayette, IN**
Master of Science in Computer Graphics Technology — **2023-Present**

NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY — **New Delhi, India**
Bachelor of Technology, Major in Computer Engineering — **2019-2023**

PROFESSIONAL EXPERIENCE

GRAPHICS RESEARCH GROUP, IIIT — **New Delhi, India**
Research Intern — **Feb 2022 – Jun 2023**

- Worked on creating a rendering pipeline for photorealistic medical volume visualization using a CUDA based Monte Carlo ray-tracer
- Developed a user friendly functionality for rendering photorealistic 3D color images of the human body with real-time interactive transparency
- Created a tool to generate surface meshes of Organ Structure from a 3D Segmentation volume
- Utilizing industry leading frameworks such as VTK and ITK, created a novel dataset of Photorealistic images for use in further research goals

LETS UNBOUND — **Mumbai, India**
Coding Mentor & Curriculum Designer — **Aug 2020 – Sept 2021**

- Designed the course curricula for Game development and App Development using Python from scratch, which served as one of the primary offerings of Lets Unbound, working in direct collaboration with the Founders
- Guided and oversaw the revamp of the Python curriculum and oversee the expansion of the advanced python curriculum into diverse streams such as App Development, Game Development, and Data Science
- Conducted workshops and QnA sessions with the other mentors to introduce the curricula to a 20+ team of mentors
- Conducted a comparative audit of curricula offered by rival companies and emerging technological trends to identify points of improvement and new avenues of expansion

RESEARCH, PROJECTS AND PUBLICATIONS

- Research on Medical Imaging and Photorealistic Visualization of 3D Volumes (**02/2022-Present**)
- Thesis on differentiating between natural and ai-generated images using neural networks (**2023**)
- Monte Carlo Ray Tracing Using CUDA (05/2023-06/2023); A CUDA based GPU implementation of a naïve Monte Carlo Raytracer. (https://github.com/Anav-117/MonteCarloRayTracer)
- OpenGL PBR Pipeline (06/2021 - 07/2021); Implementation of the Physically Based Render (PBR) Pipeline with Image Based Lighting (IBL) in OpenGL (https://github.com/Anav-117/OpenGL-PBR)
- Anav Chaudhary, Maanas Talwar, Avil Goel, Gaurav Singal, and Riti Kushwaha. 2022. De-Fence: LoRa based Hop-to-Hop Communication. In 2022 Fourteenth International Conference on Contemporary Computing (IC3) (IC3- 2022), https://doi.org/10.1145/3549206.3549312

SKILLS AND ABILITIES

- Programming Languages, Frameworks, and APIs- C, C++, C#, Python, OpenGL, CUDA, GLSL, Qt5 Javascript, Lua, MYSQL, Flutter, Arduino
- Engines and Software - Unity, Unreal Engine 5, Blender, Adobe Photoshop, Android Studio
- Soft Skills – Public Speaking and Communication, Multitasking, Ability to work independently, Flexibility