Ishaan N. Shah

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Experience

IBM India
Research Intern

📅 May 2021 - July 2021   📍 Online

- My work at IBM involved working on the OpenShift observability stack to find it's shortcomings and developing solutions to improve it.
- During my internship I worked to develop two software systems. The first system provided a unified interface for viewing all the observable signals (events, logs and metrics) in a single place.
- The second system tries to bind these observables and the topology of the cluster to represent the entire state of the cluster as a dynamic graph which changes over time.
- Tech Stack - Golang, K8s, OpenShift, RedisGraph

Google Summer of Code 2020
MetaBrainz Foundation

📅 May 2020 - August 2020   📍 Online

- Worked on ListenBrainz, a website which allows user's to track their music listening history and get useful recommendations and statistics from it.
- My project involved creating statistics and visualisations for the users and the community.
- Tech Stack - ReactJS, d3.js, Apache Spark, Python (Flask).
- More information about the project can be found in this blog.

Current Positions

Center for Visual Information Technology (IIIT-H)
Undergraduate Researcher

📅 June 2021-Present   📍 Hyderabad, India

- Working with Dr. Avinash Sharma on human body reconstruction and rendering.
- Currently working on parameterizing loose clothing and rendering layered materials.

IIIT-H
Student System Adminstrator

📅 March 2021 - Present   📍 Hyderabad

- My responsibilities include managing, troubleshooting, maintaining and improving college infrastructure.

Publications

👥 Conference Proceedings

- Jain, Aryamaan et al. (2021). "Automated Tree Generation Using Grammar & Particle System". In: *Proceedings of the Twelfth Indian Conference on Computer Vision, Graphics and Image Processing*. New York, NY, USA: Association for Computing Machinery. ISBN: 9781450375962. URL: https://doi.org/10.1145/3490035.3490285.

Projects

Raytracer

🔗 GitHub

- A minimal GPU accelerated ray tracer written in OpenGL.
- Features include next event estimation, GGX BSDF, BVH acceleration and more.

HPG 2022 Student Competition

🔗 GitHub

- Optimize the given ray tracer code to reduce noise and increase speed.
- Applied various optimization ranging from better light sampling to faster intersection tests. The details can be found in the GitHub repository.

Skye Force

🔗 GitHub

- A 3D space shooter game built using WebGL.

Superpixel Segmentation

🔗 GitHub

- Unofficial python implementation of the paper "Lazy Random Walks for Superpixel Segmentation".

POSIX Shell

🔗 GitHub

- A POSIX compliant shell written purely in C using only basic system calls.
- Functionalities include basic shell commands, background processes, redirection and piping.

Formal Education

B Tech + MS in Computer Science
IIIT Hyderabad

📅 August 2019 – Present

🎓 CGPA - 9.11

Achievements

- Deans List Awardee
- AIR 3,044 in JEE Advanced 2019
- AIR 3,734 in JEE Mains 2019