Sudeep Sharma

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EDUCATION

Indian Institute of Technology, Kharagpur
Dual degree(Btech+Mtech) in Mechanical Engineering   *Graduation Date: May 2022*

WORK EXPERIENCE

Healthplix Technologies   **Bangalore, India**
Full Stack Developer (Node.js, Python, GoLang, AWS, Flask)   *May 2022 - April 2023*
- Developed data pipeline for scheduled retrieval of daily data from multiple data sources to AWS S3 and finally to athena.
- Setup the ELK pipeline for log retrieval and searching , load tested at scale for high volume servers and log production .
- Developed and improved a big data DQR pipeline using pyspark , deployed in ecs cluster in aws.
- Developed a system to automate and scale cron tasks using airflow and celery , migrated various cron jobs to DAGs.

Homingos / Flam   **Bangalore, India**
SDE intern (Augmented Reality, React.js, Unity3d, C#, AWS)   *May 2021 – Feb 2022*
- Created recording feature for existing main AR application of the brand, frames that were captured using NatCorder API were combination of the main camera feed and overlaid AR elements.Also created a screenshot feature standalone script.
- Created various multithreaded features in the application which allowed greater performance and user experience.
- Restructured the existing user authentication and data downloading algorithm for greater scalability and privacy.
- Created various native-like features for the UI of the app which was made in unity without any pre-existing templates.

Inspirit Learning   **Mumbai, India**
Virtual Reality Development Intern (Virtual Reality, OculusVR, Unity3d, C#)   *May 2020 - July 2020*
- Worked on building educational VR and desktop ,interactable science laboratories and related experiments
- Built chemistry and biology laboratories in 3 months which were coded in C# and built using Unity, prepared assetbundles for deploying to the main application and used cloud build for making test apps.
- Worked on tracking player movement, user mouse click count and environmental interaction per user login into the app.

LEADERSHIP EXPERIENCE

Computer Graphics Lab (IIT - Kharagpur)
Founder & Advisor   *August 2019 - July 2022*
- Worked on Collaborative projects in a team such as developing games, 3d and 2d graphical development using OpenGL and C++, conducted game development workshops. Managed a team of developers in various successful projects for 2 years. Formed various branches of CGL including social media , Sponsorship, Public relation and Game Designers.Guided team for Game Development World Championship 2020. Society got enrolled under Technology Students Gymkhana on 1/08/2021 under my guidance.

PROJECTS

Design and development of VR application for post stroke rehabilitation
Guide - Dr. C.S Kumar   *August 2021 - May 2022*
- Built a VR application which contains games for helping patients with post stroke rehabilitation. Application was built using unity , various animations were built using mixamo and VR support was provided using google cardboard SDK. For detecting human limb movement , two technologies were used a) Flex gloves with haptic feedback b) Optimized hand and finger tracking system using mobile devices. The second technology used, helped to make the project affordable and the final result to be accessible by a large set of population . Research was done on how to design a VR environment for the purpose so as to allow the patient's brain to attain neuroplasticity and thereby rehabilitation.

Detection and Tracking of Monsoon Low-pressure Systems using Deep Learning
Guide - Prof. Adway Mitra   *Aug 2020 – Nov 2020*
- Worked on Generative adversarial networks to mark tracks of monsoon Low Pressure Systems in area maps of specified region, LPS were tracked using 850 hpa relative vorticity environment variable using which color coded maps of the region from 1970-2019 were developed using matplotlib, which were then put into GAN algorithm to generate future outcomes.

Development of Accidental Scenarios in a Petrochemical Industry in VR
Guide - Prof. Jhareswar Maiti   *Aug 2020 – Nov 2020*
- Created a VR simulation for potential accidents that can happen in oil industry , the project included creation of 3d models in blender and animating them using bone animation in unity, which were then coded with logic to react to certain keyboard and mouse events . It was created as a playable demo in unity with user interaction kept in mind. The created demo - game was an actual representation to a real life event that happened in an oil refinery in mississippi.

AWARDS AND ACHIEVEMENTS

- Secured 'Gold medal' in 'Ashoka Tech for Change' event during Inter IIT Tech meet 8.0 2019.
- Secured a rank of 1726 out of 200000 aspirants, scored 249/360 in JEE Advanced 2017.
- Secured a rank of 2304 out of 1500000 aspirants, scored 254/360 in JEE Mains 2017.