PAVAN KUMAR SINGH CANPUR

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Kindly take a look at my resume and portfolio through the provided URL
(https://cpavansingh.github.io/Resume-Portfolio/)

Experience

START-UP ANGEL (Funded by Der Freistaat Sachsen), JANUARY 2022 - APRIL 2023 Dresden/Germany
Software Developer
Software Developer | Flutter Specialist | Social Commerce App Developer:
Worked on a start-up to create a feature-rich social commerce application.
- Led the end-to-end development of a dynamic social commerce app for students, employing Flutter for the frontend.
- Created a resilient backend system by utilizing MongoDB, Express, and Node.js.
- Successfully optimized deployment processes on AWS, enhancing application performance. Integrated AWS S3 buckets to seamlessly store and manage diverse media assets, including images and videos.

TU DRESDEN, JUNE 2022 - NOVEMBER 2022 Dresden, Germany
Research project (Unity Developer)
AR Room Visualization:
Developed AR Application using Unity, 360-degree Image Capturing, Alignment Methods, QR Code, Room Permanent Object Detection, YOLOv4 Integration
- Visualized AR rooms by capturing 360-degree pictures with a GoPro
- Tested different alignment methods such as QR code, manual, and object detection
- Developed an AR application using Unity
- Utilized YOLOv4 for object detection

VRKETING, SEP 2021 - MAY 2022 Dresden, Germany
AI and Unity Developer intern
Landmark Detection for 3D Model Watch & Hearing Piece Mounting:
Developed a two-layer detection system using YOLO and U-Net/Hourglass architecture to align 3D models onto the wrist and ear
- Worked on detecting landmarks for mounting 3D models on wrist and ear
- Utilized YOLO for bounding box detection
- Used U-Net/Hourglass architecture for landmark detection
- Placed 3D models on wrist and ear using Unity

TU DRESDEN, APR 2020 – OCT 2020 Dresden, Germany
AR Developer (Student assistant)
Visualizing Movement Patterns Using Augmented Reality in Unity:
Created AR visualizations of clusters where users spend significant time using density-based clustering and Convexhull algorithm at TU Dresden.
- Visualized movement patterns using AR in UNITY
- Used DBSCAN for density-based clustering
- Integrated API for data collection
- Built Convexhull algorithm for cluster representation in UNITY

CASUS (CENTER FOR ADVANCED SYSTEM UNDERSTANDING), OCT 2020 – JAN 2021 Dresden, Germany
Research student
Forecasting COVID-19 Cases with Hybrid Epidemiological-Deep Learning Model:
Implemented a hybrid model combining the SIR model and LSTM neural network to forecast COVID-19 cases at CASUS.
- Forecasted COVID-19 cases with a hybrid epidemiological deep-learning model
- Used the SIR Model for epidemiological simulation
- Implemented a LSTM neural network to learn long-term dependencies
- Utilized GPU parallelization to reduce computational time

Education

Technische Universitaet Dresden, Masters in **Visual Computing**.
- Studying Master's program consists of Computer vision, Computer Graphics, Machine Learning and User Interface.

Bachelors in **Mechanical Engineering,** Jawaharlal Nehru Technological University, Anantapur (India).

Additional

- Proficient in **C++, C#, python, javascript**.
- Expertise in **UNITY** and Deep Learning frameworks **(OpenCV, Pytorch, Tensorflow**).
- Good knowledge in **BLENDER, backend API, html** and **flutter**.
- **Languages** : Englisch – Fluent ,Deutsch – A2 level.