Tanay Srivastava

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EDUCATION

DAV Public School, Vasant Kunj (2019-20): 94.8% DAV Public School, Vasant Kunj (2021-22): 91%

BTech. (CSE-AIML), Manipal Institute of Technology, Manipal: 8.49 CGPA

TECHNICAL SKILLS

Programming Languages: C++, C, Python, JAVA

Others: Deep Learning, RNN and CNN, Parallel Programming(CUDA, MPI), SQL, Computer Vision Web Development: HTML, CSS, JavaScript, jQuery, ReactJS, Tailwind, Bootstrap, MaterialUI

EXPERIENCE

Team Member | Robotics and Circuits

Aug 2022 - Present

- Created ROS2 simulations for robotic models and algorithms using Gazebo, tf2.
- Learned about various machine learning based path-planning and motion-planning algorithms.
- Cleared the first round of **eYantra** (**IIT-B**) by learning and using computer vision and vector calculus.

Student Intern | Adobe

Summer 2021

- Learned innovative tools from Adobe K12 applications like Adobe Spark, Premiere Pro, etc.
- Worked on presentation skills to highlight the importance of a product using tools like Figma and Premier Pro.

AWARDS AND ACHIEVEMENTS

Top 20 | AppLab Intra-university Hackathon

November 2023

- Designed a dynamic website using HTML, CSS, and JavaScript to provide personalized information.
- Collaborated effectively with team members to refine user experience and functionality, resulting in recognition among the top 20 projects in the AppLab IntraCollege Hackathon.

India Top 20 | School of the Month Challenge (Niti Aayog)

Aug 2020

- 3D-designed innovative Lego-like block homes as part of a team of four.
- Demonstrated creativity and problem-solving skills in conceptualizing cost-effective and scalable housing solutions.
- Collaborated with Russian students under the AIM-SIRIUS (Sochi) Programme to develop a news aggregator and summarizer app. Participated in the AIM-Sweden SHE-STEM conference, engaging with Swedish delegates to explore and discuss advancements in STEM fields.

PROJECTS

TrafficGAN October '25

• Designed and trained a Conditional **GAN** with spectral normalization and conditional batch norm to generate class-balanced synthetic traffic sign images for robustness against adversarial scenarios.

CPU vs GPU Performance for Real-Time Image Denoising and Feature Extraction March 2025

 Optimized and compared CPU vs GPU performance for real-time image denoising and feature extraction using CUDA, achieving significant speedups in various computer vision algorithms.

Project Panorama November 2024

• Developed a scalable image stitching pipeline using SIFT/ORB, RANSAC, and hierarchical clustering to generate high-quality panoramas with minimal distortion.

Intelli-Goal April 2024

• Created a simulation of an **intelligent agent** to track a goal point in a 2D environment using various algorithms like **AStar** and Best First Search. Tracking is simulated using PyGame for better understanding.

ChatBook November '23

• Developing a clean and organized chat application using **JAVA Sockets** for communication between clients and servers, JavaFX and CSS for the front end, and **MySQL** for **chat backups**.

Crime and Demography Analysis

November '23

• Performed **exploratory data analysis** for **identification and prediction of patterns** of crimes concerning different demographic attributes for a given population and region.

Weather App June 2024

• Building a weather dashboard with **real-time updates** (OpenWeatherMap), responsive frontend design(using React and Material UI), **animations**(using Framer), and Firebase integration for **user authentication and database**.

POSITIONS HELD

Mentor - Photography Club

Team Member - Robotics & Circuits

Head Boy - DAV Public School, Vasant Kunj