Dhruv Singla

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Technical Skills

- **Programming Languages:** Python, C++, SQL ,MERN, Bootstrap, JQuery
- **Specialisation:** E T L , Deep Reinforcement Learning ,Statistical Analysis, Data Cleaning and EDA, Analytics
- **Familiar**: Linux ,Git ,IOT ,WireShark,GNS3 MATLAB, Power BI , Figma, Model Deployment
- **Core Competency:** Project Management & Leadership , Analytical Problem Solving ,Collaboration & Teamwork , Data-Driven Decision Making,

Education

PES University, B.Tech in Electronics & Communication   Dec 2020 – June 2024

- **Relevant Coursework:** Programming with C++ , Real Time Operating System , Web Development by Udemy , Computational Solving with Python and C , Machine Learning **Specialisation** ,Digital Image Processing , Computer Networks

Projects

Complex Ecosystem Simulation with Reinforcement Learning(C++)   May 2023

- Developed and Integrated Q-learning agents into the simulation, demonstrating proficiency in combining machine learning techniques with an accuracy of 95%

MQTT Protocol based Chatbot for Appliance Control   Aug 2023

- Developed a Flask-based backend with MQTT to control smart appliances via natural language commands
- Used OpenAI GPT to interpret user inputs and send appropriate commands to the appliance control system

Accelerometer-Enhanced GPS Tracker(C Programming)   Jan 2023

- Deployed a wireless data logger that collects and sends environmental data like temperature, touch, and GPS coordinates using an accelerometer-triggered system for enhanced efficiency and remote monitoring

Collaborative Storytelling Platform   June 2023

- A full-stack web app where users create and contribute story chapters, with CRUD operations for stories and chapters, JWT-based authentication, MySQL for data storage, and a voting system for content ranking.

Publications

Stack: PyTorch , CUDA, RIS Gym Environment   May 2024
Beamforming Design for RIS-Assisted MISO Systems
Fairness in Deep Reinforcement Learning based Joint Active and Passive

- Co-authored a project focusing on optimizing RIS-enhanced MISO wireless systems with DRL techniques, achieving 99% accuracy.
- The research aimed to improve beamforming to enhance signal quality and overall network performance.

Additional Experience And Awards

Operations Manager,Flo Mobility :   August 2024 - Present

- Spearheaded operational workflows, achieving an 80% reduction in TAT, enhancing process velocity
- Onboarded 50+ Vendors and Managed vendor negotiations and procurement, optimizing costs and supply chain
- Collaborated Web Team in Fleet management app and product teams to align operations with business goals.
- Set up internal SOPs and streamlined processes for scalability.
- **Teaching Assistant (2023):** Taught 8 Lab sessions of Pytorch on ML and MATLAB focusing on antennas
- **Leadership Roles :** Head of Discipline Committee, Head of Security and Advisor to Sponsorship Head: *Maaya -PES University(College Flagship Fest)*