

DIPTAYAN JASH

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EXPERIENCE

SSUP Project Intern

Sony Research India

📅 02/2024 - 10/2024 ⚘ SRMIST

- Collaborated on an embedded systems project to develop a pipeline inspection robot. Achieved real-time crack detection and data transmission with **less than 5 ms** latency via web sockets.
- Implemented the robot's movement and control logic, optimizing real-time performance and ensuring efficient communication with an AWS-based server for data logging and analysis.

Samsung Prism R&D Intern

Samsung

📅 11/2023 - 06/2024 ⚘ Remote

- Engineered a machine learning solution with OpenAI's CLIP model and feature extraction, identifying and categorizing duplicate images. Leveraged multithreading and parallel processing to **reduce processing time by 50%**.
- Enhanced image deduplication accuracy by implementing DBSCAN clustering on a dataset of over 10,000 images, leading to a **30% improvement** in system efficiency.

IIT Summer Intern

IIT Madras

📅 06/2023 - 07/2023 ⚘ Chennai, India

- Built an MQTT client for the TIVA microcontroller, **reducing data transmission latency by 10%** between IoT devices in industrial applications using the HiveMQ broker.
- Designed a real-time data visualization portal using ReactJS and Flask, enhancing monitoring and analysis of microcontroller **performance by 20%**.

PROJECTS

Chatter

🔗 https://github.com/djdiptayan1/Chat_Application

Tech Stack: Java, Swing, Sockets

- Developed a real-time chat application, enabling secure and efficient client-server communication through socket programming. Implemented multi-client group chat functionality, supporting over **100 simultaneous connections** to ensure seamless and reliable communication between users.

Agamotto

🔗 <https://github.com/djdiptayan1/Agamotto>

Tech Stack: Python, TensorFlow, Next.js, Aceternity UI, Tailwind CSS, Flask

- Spearheaded the development of a deepfake video detection system in an **Agile team environment** for SIH'24, achieving a **detection accuracy of 90%**.
- Deployed the application using Docker, **containerized** for scalability, and deployed on an **Ubuntu server**. **Reduced setup time by 50%** using docker compose for quick deployment and testing. Collaborated to integrate a TensorFlow-based model with Flask for real-time detection.

Article Recommendation System

🔗 https://github.com/djdiptayan1/Bajaj_hackathon_part1

Tech Stack: Next JS, Tailwind CSS, Python, fastAPI

- Increased **user engagement by 25%** through developing AI/ML-powered site recommendations for Bajaj Finserv Datathon.

VOLUNTEERING

President

GitHub Community SRM

📅 2022 - Present

GCSRMS Promotes Open source development in SRMSIT.

SKILLS

Java, C, C++, Python, HTML, CSS, Javascript, React JS, Next JS, NodeJS, Tailwind CSS, REST APIs, IOS, Swift, Flask, ExpressJS, MongoDB, Firebase, Git, Arduino, Raspberry pi, Embedded C, Docker, Containers, Xcode, Agile development

EDUCATION

Bachelor of Technology in Computer Science and Engineering

SRM Institute of Science and Technology

📅 06/2022 - Present ⚘ Chennai, India

CGPA

8.80 / 10

ISCE (94.4%), ISC (95%)

St. Paul's Academy

📅 2011 - 2022 ⚘ Burdwan, India

ACHIEVEMENTS

2nd in the Bajaj Finserv Datathon.

Secured 2nd Prize, 4th Prize, and 5th Prize in three categories at the International Roboroarz Robotics Hackathon, Singapore 2024.

All India Rank 11, DD Robocon 2023 involving 100+ national teams.

2nd in Smart India Hackathon college finalist for the national round.

PUBLICATIONS

Filter Duplicate Images using CLIP

7th International Conference on Ambient Intelligence, Software Engineering and Health and mHealth 2024

D. Jash, T. Tripathi, K. Johari, A. Rathod, Gayathri M, Suganiya M, A. Mishra, A. S MENON

Leukemia Classification Using Transfer Learning Models

Second IEEE International Conference on Advances in Information Technology, 2024

S. Kundu, D. Jash, R. Dutta, D. Kannan, K.C. Prabu Shankar, F. Yakub

COURSES AND CERTIFICATIONS

Operating Systems, Database management System, DSA, DAA, Advanced Programming Practices, Object Oriented Programming, IOS App Prototype Design and Development