

DIPTAYAN JASH

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EDUCATION

SRM Institute of Science and Technology <i>B.Tech in Computer Science and Engineering</i>	June 2022 - Present Chennai, TN
· CGPA: 8.88 / 10	

St. Paul's Academy <i>ISCE (94.4%), ISC (94.5%)</i>	Burdwan, West Bengal March 2011 – June 2022
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EXPERIENCE

iOS App Developer Intern <i>Infosys Mysore</i>	April 2025 – May 2025
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Led the development in **SwiftUI** for a production-grade iOS app that won the **Best App Award**. I worked across the stack, integrating **REST APIs**, contributing to backend logic using **Node.js** and **Express**, and deploying the containerized solution on **Microsoft Azure** using **Docker**.

To ensure scalability and responsiveness, we conducted load testing with **K6** and **Grafana**, sustaining **3018 concurrent user requests**. Through careful performance tuning, we optimized the data loading time to **less than 150 ms**, ensuring smooth user experience without compromising feature reliability.

SSUP Project Intern <i>Sony Research India @ SRMIST</i>	Feb 2024 – Oct 2024
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Collaborated on an embedded systems project to build a **pipeline inspection robot**, coordinating efforts across four technical teams. The system enabled **real-time crack detection and data transmission with less than 5 ms latency** via **WebSockets**, facilitating instant visualization and alerting.

I implemented the robot's **movement and control logic**, optimized real-time performance, and integrated with an **AWS-based backend** for fault logging and analysis. The project demonstrated high-precision robotics, seamless cloud communication, and embedded-AI pipeline integration.

PRISM R&D Intern <i>Samsung R&D Institute India (Remote)</i>	Nov 2023 – June 2024
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Engineered a machine learning-based **duplicate image detection** solution using **OpenAI's CLIP model** for visual feature extraction. Leveraged **multithreading and parallel processing** to reduce processing time by **50%** and applied **DBSCAN clustering** to enhance de-duplication accuracy by **30%** on a dataset of **10,000+ images**.

This project focused on system-level optimization and scalable AI inference. The work was **published at an international IEEE conference**, and I received the **Excellence Award from Samsung PRISM** for impactful research and technical innovation.

PROJECTS

ShelfSpace <i>SwiftUI, Express.js, Supabase, Docker, Azure, Google Gemini</i>

Created comprehensive library system with role-based access across multiple libraries. Implemented **iCloud SMTP** for secure 2FA and supported IOS 16.6+. Slashed loading time by 90% from 6.71s to 147ms via caching, lazy loading, and architectural optimization.

GitHub: [LINK](#)

Recap — Every Memory Matters

Swift (UIKit), Firebase

Live on Apple **TestFlight** with dynamic recall-based Q&A and caregiver tools. Implemented scientifically inspired questioning with **interval reinforcement** logic. Features real-time alerts, facial memory games, and routine tracking.

GitHub: [LINK](#)

CTRCR Website — National Law University Mumbai

Next.js, Tailwind CSS, Express.js

Core developer for the Center for Training and Research in Commercial Regulations under National Law University Mumbai Built **custom CMS** for secure content management. Delivered multiple new pages to enhance digital presence.

link: ctrcr.com

Article Recommendation System

FastAPI, Python, Next.js, Tailwind CSS

Developed **AI-based content recommendation engine**, increasing user engagement by **25%** Integrated analytics dashboard with **FastAPI REST API** for content delivery

GitHub: [LINK](#)

PUBLICATIONS

Filter Duplicate Images using CLIP, 7th Int. Conf. on Ambient Intelligence, Software Engineering & Health 2024 <https://ieeexplore.ieee.org/document/10747622>

Leukemia Classification Using Transfer Learning Models, 2nd IEEE Int. Conf. on Advances in IT, 2024 <https://ieeexplore.ieee.org/document/10690484>

TECHNICAL SKILLS

Languages	Java, C++, Python, C, Swift, JavaScript
Frameworks	React, Next.js, Flask, Express.js, FastAPI, Tailwind CSS
DevOps	Docker, Azure, Git, Firebase, MongoDB, REST APIs
IoT	Arduino, Raspberry Pi, MQTT, Embedded C
Tools	Jira, Postman,

ACHIEVEMENTS

Winner — Best App, iOS Infosys Internship Program

AIR 11 — DD Robocon 2023, among 100+ national teams

Finalist — Smart India Hackathon (SIH) 2023

2nd Place — Bajaj Finserv Datathon

2nd, 4th, 5th Prizes — International Roboroarz Hackathon, Singapore 2024

Selected — iOS Student Developer Program by Apple & Infosys

LEADERSHIP & VOLUNTEERING

President, GitHub Community SRM

2024 – Present

Embedded Engineer, SRM Team Robocon

2022 – 2024