

Arsh Prem

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EDUCATION

- **SRM Institute of Science and Technology** Tiruchirappalli, Tamil Nadu
B.Tech in Computer Science; CGPA: 8.16 July. 2023 – May. 2027

INTERNSHIPS/EXPERIENCE

- **Blubirch** Bangalore, Karnataka
Software Engineer Intern Dec 2025 – Jan 2026 (On-site)
 - **Worked on backend development using Ruby on Rails and RESTful APIs, contributing to internal IT systems and application features.:** View Internship Certificate
- **Youth for Seva** Bangalore, Karnataka
Tech Intern June 2025 – July 2025 (On-site)
 - **Contributed to development and enhancement of technical features supporting organizational workflows, improving functionality and user experience. Collaborated with cross-functional teams to analyze requirements and deliver assigned tasks effectively.:** View Internship Certificate

PROJECTS

- **P2P File Sharing System with XState FSMs and WebRTC:** A production-quality, decentralized peer-to-peer file sharing system using Finite State Machines (XState) for robust file-transfer state management and WebRTC for direct peer connectivity. Built with a modern full-stack architecture enabling seamless, browser-based file exchange.
Tech Used: React (Vite), TailwindCSS, XState, Node.js (Express + WebSockets), Docker
- **Road Accident Prediction System:** A production-ready, self-hosted system for analyzing and predicting road accidents using historical incident datasets, weather enrichment, and machine learning. Includes: Streamlit UI dashboard, Celery background worker, weather data caching (Open-Meteo), OSGB → WGS84 geospatial conversion for UK STATS19 datasets, SHAP model explainability, and Docker Compose orchestration.
Tech Used: Python 3.9+, Streamlit (Frontend), Machine Learning (scikit-learn), Celery, Docker & Docker Compose
- **Flowbite Blog (Ruby on Rails):** A production-ready Ruby on Rails blog application with custom-built authentication, admin dashboard, social login, and user engagement features including likes, comments, and notifications. Designed with a responsive UI using Tailwind CSS and Flowbite, and structured for modern Rails development and deployment.
Tech Used: Ruby on Rails, Hotwire (Turbo & Stimulus), Tailwind CSS, Flowbite, PostgreSQL, Docker

CERTIFICATIONS

- **IBM Full Stack Software Developer – Professional Certificate:** 15-course specialization covering Full Stack Development, Cloud Computing, DevOps, Microservices, and Generative AI.
View Certificate
- **Guest Lecture – Appreciation Certificate:** Delivered a guest lecture on “Arduino Basics” at a National-Level Technical Workshop, SRM Institute of Science and Technology, Tiruchirappalli.
View Certificate

POSITIONS OF RESPONSIBILITY

- **President, Model United Nations (MUN) Club:**
SRM Institute of Science and Technology, Tiruchirappalli Jan 2025 – Present
Led organization of MUN conferences, debates, and training sessions; managed core team and coordinated inter-departmental activities.

SKILLS

- **Proficient:** Ruby on Rails, Node.js, JavaScript, Data Structures and Algorithms, SQLit
- **Comfortable:** C++, JAVA, HTML, PYTHON, RUBY
- **Tools:** Git, VS Code, Linux