

Prem B

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Experience

Machine Learning Engineer Intern Google Developers Virtual	Apr 2025 – May 2025
– Preprocessed and standardized 8+ datasets and built feature pipelines to improve model input quality, enabling identification of 12% more actionable trends.	
– Delivered an interactive Dash analytics dashboard and concise technical packet (20 slides + 10-min walkthrough), cutting stakeholder review time by 30% and adopted by 3 teams.	
Software Engineer Intern ISRO ISTRAC Bengaluru	Jan 2025 – Feb 2025
– Built a Flask telemetry dashboard with optimized SQL ingestion; reduced telemetry latency from 5s to 2s and improved operational monitoring.	
– Automated binary-to-JSON ingestion and integrated centralized logging (ELK stack) to accelerate investigations and cut manual data prep by 60%.	
AI & Robotics Intern ISRO SDSC Sriharikota	Sep 2024 – Oct 2024
– Designed PyBullet + OpenCV robotic-arm workflows achieving a 92% simulated pick-and-place success rate.	
– Trained PPO & DQN agents to raise assembly precision (15%) and documented architecture while mentoring a 5-member team.	

Projects

AARCS — Automated Ambulance Route Clearance System	<i>Flutter, Firebase, Node.js, Google Maps API</i>
– Built paired Flutter apps with Firebase Realtime DB and Node.js backend; simulations show 50% reduction in emergency transit time in dense urban tests.	
– Integrated Google Maps for live tracking and dynamic rerouting; added Firebase Admin role-based auth for traffic-control coordination (Project link).	
Portfolio Website	<i>React/Next.js, Accessibility, SEO</i>
– Minimal, responsive site with animated background, light/dark modes and recruiter-focused micro-interactions.	
– Applied SEO & performance optimizations (lazy-load, optimized assets, semantic metadata) with measurable Lighthouse gains (Project link).	

Education

B.Tech — Computer Science and Engineering	2022 – Present
Bharath Institute of Science and Technology	<i>Chennai, Tamil Nadu</i>
CGPA: 8.81/10	
Intermediate (MPC), St. Vincent's. Mat. High. Sec. School	2020 – 2022
Percentage: 74.5%	<i>Chennai, Tamil Nadu</i>
State Board (SSLC), St. Vincent's. Mat. High. Sec. School	2019 – 2020
Percentage: 81.6%	<i>Chennai, Tamil Nadu</i>

Technical Skills

- Languages & Frameworks:** Python, Dart (Flutter), JavaScript (React/Next.js), Java, SQL, Node.js.
- AI/ML & Robotics:** PyTorch, TensorFlow, Scikit-learn, OpenCV, PyBullet, Reinforcement Learning (PPO, DQN), CNNs/RNNs.
- Back-end & Cloud:** Firebase Realtime DB, REST APIs, AWS basics.
- Web & Performance:** Flask, Dash, SEO & performance optimization, responsive design, accessibility.
- Tools:** Git, GitHub, CI/CD, unit testing, logging/observability.

Additional

- Languages:** Tamil (Native), English (Fluent), Hindi (Proficient), Japanese (Basic).