

PRADHUN KRISHNA

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Technical Skills

Programming Languages: Java, TypeScript, JavaScript, Python, C++, SQL, Kotlin, Solidity, HTML, CSS, XML

Frameworks & Libraries: Spring Boot, Spring Data JDBC, Express.js, Node.js, React.js, React Native, Next.js, Material-UI, Tailwind CSS

Databases & Storage: MySQL, PostgreSQL, MongoDB, Supabase, IPFS

Cloud & DevOps: AWS, Google Cloud Platform (GCP), Azure, Docker, CI/CD, Cloud Computing, DevOps Fundamentals

Backend & Systems: RESTful APIs, Microservices Architecture, WebSockets, System Design

Automation & Tools: GitHub, n8n, Postman, MCP, Ollama, LM Studio, MySQL Workbench, Android Studio, IDEs

AI / Computer Vision: TensorFlow, YOLO, OpenCV, OCR, Edge AI Optimization, Edge AI Deployment

Work Experience

Uyir (NGO)

June 2025 – Present

Edge AI & Full Stack Developer

Coimbatore

- Built an **Edge AI-powered smart parking system** using Raspberry Pi with real-time number plate recognition for automated entry/exit.
- Developed **full-stack infrastructure** (app + backend) to manage parking sessions, slot availability, billing, and user roles.
- Integrated **hardware control and manual fail-safes**, enabling security staff to handle cash payments and barrier overrides reliably.

Quantyze (Internship)

January 2026 – Present

AI & Full Stack Developer

Coimbatore

- Built and deployed an automated AQI (Air Quality Index) data ingestion pipeline by developing a custom web scraper and executing it via containerized AWS Lambda to collect and persist structured environmental data into a database.
- Designed and implemented a RESTful API to provide programmatic access to real-time and processed AQI data.
- Working on an ML-driven inventory optimization model using proprietary business datasets to improve cost efficiency and demand planning.

Freelance

Dec 2025 - Present

Full Stack Developer

Coimbatore

- Developed and deployed a full-stack e-commerce platform for **NilgirisFresh**, handling product listings, order processing, payment integration (Razorpay), and admin-based inventory management.
- Built responsive business websites for **Suntime Solar** and **VJ Homefoods**, implementing product showcases, lead capture forms, and client-side content management.

Projects

Sanskriti – AR/VR Cultural Heritage Platform | Java, Android, Unity, OpenGL, AR/VR, XML, 3D Graphics

- Built an Android-based AR/VR platform to preserve and promote Indian cultural heritage through immersive experiences.
- Developed a full-stack AR/VR system for digital cultural heritage preservation across mobile and web platforms.
- Implemented immersive 3D timelines and gaze-based navigation using Unity and C.
- Integrated secure authentication, subscription management, and geo-tagged monument data.

Parkwise – Parking Automation Platform | React Native, AWS, Docker, Microservices, Edge AI, Raspberry Pi, PostgreSQL

- Built a smart, government-aligned parking platform with a cross-platform mobile app for parking discovery, reservations, digital payments, and real-time occupancy tracking.
- Designed and deployed a cloud-native microservices backend on AWS, containerized with Docker for scalability, security, and fault tolerance.
- Integrated a fully local, edge-based ANPR system for automated vehicle identification and contactless entry and exit.
- Implemented real-time device-to-cloud communication using WebSockets and MQTT for low-latency boom barrier control and hardware synchronization.

Children's Library Management System | Spring Boot, React, MySQL, JWT, RBAC, Material UI

- Designed a child-safe digital library system with parental oversight and controlled content access.
- Implemented a parent portal for child account management, access control, and real-time reading activity monitoring.
- Built an end-to-end system with a Spring Boot backend and a React-based frontend for browsing, borrowing, and visualization.
- Engineered role-based access control (Admin, Parent, Child) with secure JWT authentication and automated fine calculation.

Agreenbot – Autonomous Precision Agriculture System | Python, Computer Vision, TensorFlow, IoT, ML

- Developed an AI-driven autonomous robotic spraying system using computer vision and machine learning.
- Reduced pesticide usage by up to 90% through vision-guided, targeted spraying.
- Integrated robotics, IoT, and computer vision to enable efficient and sustainable precision agriculture workflows.

Awards and Achievements

- **Smart India Hackathon 2025 – Winner** : organized by the **Ministry of Education, Government of India**, for building a scalable, real-world technology solution aligned with national initiatives.
- **School Topper (3 consecutive years)**: Ranked 1st overall for three consecutive years (10th – 12th std) , showcasing academic excellence and persistence
- **Uyir Project Implementation**: Built scalable production ready automated parking system and implemented successfully along with mentorship from industry experts.
- **Problems on LeetCode**: Solved 230+ DSA problem. Demonstrated strong problem-solving and algorithmic thinking skills.

Core Competencies

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|---------------------|-----------------------|---------------------------|-------------------------|
| - Data Structures | - Algorithms Analysis | - Artificial Intelligence | - Cloud Computing |
| - Computer Networks | - Database Management | - API Integration | - Computer Architecture |
| - Edge AI | - Cloud Deployment | - AR/VR | |

Leadership / Extracurricular

- **Deloitte Australia Technology Job Simulation on Forage – January 2026** : Completed a job simulation involving development and coding. Wrote a proposal for creating a dashboard
- **School Headboy (St Thomas Higher Sec School)**– elected to lead and represent **1,000+ students**, taking charge of academic, cultural, and disciplinary initiatives and consistently standing at the forefront of every major school activity and decision.
- **Class Representative** Acted as a liaison between faculty and student.

Education

Sri Krishna College of Engineering and Technology (CGPA-8.3)

Bachelor of Engineering in Computer Science and Technology

Sep. 2024 – Mar 2028

Coimbatore, Tamil Nadu