

H C PRAJWAL

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 Portfolio

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 Bangalore, India

PROFILE SUMMARY

Full Stack and AI Engineer with experience in building scalable web applications and AI-powered systems using Python, Next.js, FastAPI, Docker, and Kubernetes. Skilled in developing end-to-end solutions from frontend interfaces to backend APIs and ML model integration. Passionate about applying AI-driven intelligence to real-world engineering and automation systems.

EDUCATION

B.E. in Information Science and Engineering

MVJ College of Engineering, Bengaluru

Dec 2019 – Jun 2024

CGPA: 7.69

EXPERIENCE

RD Intern — TiHAN IIT-Hyderabad

Feb 2026 – Present

- Designing and developing UAV ground control-style software (inspired by QGroundControl and ArduPilot) with modules for mission planning, telemetry, parameter management, and real-time visualization.
- Building AI/ML data pipelines for large-scale image annotation and semantic segmentation to train and evaluate perception models for autonomous drones.
- Integrating computer vision and ML workflows into UAV software systems, collaborating with RD teams to test, debug, and optimize autonomy-related components.

AI Intern — Networkers Home

Dec 2025 – Feb 2026

- Built a time-based WireGuard access control platform enabling secure, scheduled VPN access management.
- Built AI developer tools including an AI tools marketplace and a FastAPI backend code generator optimized for LLM workflows.
- Implemented Speech-to-Text and Text-to-Speech pipelines for an AI-powered personalized tutoring web application.
- Used Supabase for scalable data storage and backend integration.

DevOps Intern — Elevate Labs

Sep 2025 – Nov 2025

- Designed CI/CD pipelines using GitHub Actions, Docker, and Jenkins to automate builds and deployments.
- Managed containerized applications using Docker and Kubernetes (Minikube).
- Built and deployed a React + Vite portfolio website with GitHub Pages CI/CD automation.
- Monitored system performance using Netdata in Dockerized environments.

TECHNICAL SKILLS

Languages: Python, C++, SQL

Frontend: Next.js, React.js, HTML, CSS

Backend: FastAPI, Flask, Node.js, RESTful API Design

ML/AI: PyTorch, TensorFlow, PySpark, Gen-AI, Transformers, LangChain, NLP, RAG, Data Annotation, Semantic Segmentation

Cloud: AWS (Basics), Azure (Basics)

DevOps: Docker, Kubernetes, GitHub Actions, Jenkins

Data & Visualization: NumPy, Pandas, Matplotlib, Seaborn, Plotly

Tools: Git, VS Code, Google Colab, MySQL Workbench

PROJECTS

AI-powered FastAPI Backend Code Generator

- Built an AI-powered system that generates production-ready FastAPI backends from high-level ideas.
- Implemented OpenAPI generation, JSON schema previews, cost estimation, validation, and diff-based regeneration.
- Enabled live preview and ZIP export for rapid backend bootstrapping.

Virtual Mechanic – AI-based Vehicle Assistance

- Developed an AI assistant for vehicle diagnostics using text, image, audio, and video inputs.
- Integrated NLP models and optimized vector search for low-latency retrieval.

CERTIFICATIONS

- The Complete Web Development Bootcamp — Udemy
- Specialized Program in AI & ML in Drone Technology — IIT Hyderabad (TiHAN)