

Prathamesh Kulkarni

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Professional Summary

Full Stack Developer with hands-on experience in developing and deploying modern web applications using JavaScript, TypeScript, React.js, and Node.js. Skilled in building scalable RESTful APIs with Express.js and managing data using MongoDB and MySQL. Experienced in containerised deployments using Docker and working with cloud platforms such as AWS to ensure reliable, high-performance applications. Familiar with CI/CD pipelines, Git version control, and basic DevOps practices. Additionally, brings exposure to Next.js for server-side rendering, React Native for mobile application development, and GraphQL.

Experience

Machine Learning Developer Intern – Edunet Foundation

Dec 2024 – Mar 2025

- Designed and deployed predictive ML models using TensorFlow in cloud-native environments. Integrated automated testing and monitoring pipelines, improving reliability and scalability. Collaborated with data engineers to optimize preprocessing.
- Increasing accuracy by 12%. Delivered end-to-end ML solutions covering data ingestion, training, deployment, and performance tracking.

Android Developer Intern – Elespa HEV, Pune

Oct 2023 – Dec 2024

- Developed and optimized Java-based Android interfaces for real-time in-vehicle diagnostics. Worked closely with hardware teams to ensure accurate diagnostic data visualization.
- Enhanced system responsiveness and memory management for stable automotive performance.

Web Developer Trainee – Bright Career Infotech, Latur

Jun 2022– Aug 2022

- Assisted in developing scalable web applications using HTML, CSS, JavaScript, and Node.js. Focused on modular architecture, performance optimization, and cross-browser accessibility.
- Supported deployment and version control through Git and Agile collaboration tools.

Projects

Thalassemia Patient–Donor Matching System (ongoing & sponsored) - `Postgresql` , `React Native` , `Next.js` , `Node.js` , `Express.js` .

- Building a cross-platform AI-powered system for patient–donor compatibility analysis and management, aimed at improving care.
- Implements real-time matching algorithms, role-based dashboards, and scalable backend architecture, designed with cloud deployment readiness. Sponsored project, demonstrating collaboration with industry mentors and practical application of full-stack + AI integration.

Hospital Food Management System & Inventory Management (Live) - `MongoDB` , `Expressjs` , `React.js` , `Node.js` .

- Implemented role-based access control, real-time inventory analytics, and predictive stock monitoring,
- achieving a 30% reduction in food wastage. Designed for scalability and modularity, following microservice-oriented backend principles.

IPL Cricket Analysis (Live) - `Next.js` , `Recharts` , `Tailwind CSS` , `MongoDB` , `Nodejs` , `Express.js`

- Built an interactive analytics dashboard for IPL data visualization using Next.js, Recharts, and REST APIs for dynamic data updates.
- Applied optimized indexing and caching to reduce query response times by 40%, improving user experience.
- Deployed on Vercel using cloud-native practices, showcasing scalable, high-performance web application design.

HEART FAILURE DETECTION (Live) - `Python` , `scikit-learn` , `Streamlit`

- Developed an AI-powered clinical decision support system to predict heart failure risk based on medical parameters.
- Trained and deployed ML classification models using scikit-learn, with an intuitive frontend built in Streamlit for real-time patient insights. Deployed as a cloud-hosted web application, integrating monitoring and automated updates for reliability.

Education

B.E. in Artificial Intelligence & Data Science – PVG’s COET, SPPU University	(SGPA: 8.90)	Aug 2023 – Expected Aug 2026
Diploma in Information Technology – Puranmal Lahoti Govt. Polytechnic, Latur	(89.06%)	Dec 2020 – Aug 2023
High School – Shri Deshikendra Vidyalaya, Latur	(93.20%)	Dec 2010 – Aug 2020

Technical Skills

Programming Languages: Python, JavaScript (ES6+), TypeScript, C++, Java

Frameworks & Libraries: Node.js, FastAPI, React.js, Next.js, TensorFlow, scikit-learn, pandas, numpy

Frontend Development: HTML5, CSS3, Tailwind CSS, Recharts, Framer Motion, Responsive UI Design

Backend & APIs: RESTful API Design, Authentication, FastAPI, Express.js, Modular Architecture, Microservices

Databases: PostgreSQL, MongoDB, Supabase, Query Optimization, Data Modeling

DevOps & Cloud: Docker, Kubernetes, AWS (EC2, RDS, S3), CI/CD Pipelines, Linux, Shell Scripting

AI & Machine Learning: Supervised & Unsupervised Learning, Model Training, Data Preprocessing, Streamlit App Deployment

Version Control & Tools: Git, GitHub, Agile/Scrum, Figma, VS Code, Postman

Extracurriculars & Certification

- Technical Head-aIDEAS Association
- Google Career Certificate in Generative AI
- Machine Learning Course by DeepLearning.ai

Social Media Head – Training & Placement Cell

Open Source: Contributed bug fixes to minor OSS

IBM Data Science Certificate