


# Om Jalindar Barvekar

 jayaschool1981-rgb

 om-barvekar

 Portfolio

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## Professional Summary

Results-driven **Full-Stack & AI Engineer** with proven ability to design, develop and deploy **secure, cloud-native, microservice-based applications**. Expert in **React, Node.js, Express, MongoDB, Python (Flask / FastAPI)**, with experience across **CI/CD pipelines, containerization (Docker + Docker Compose)**, and **cloud orchestration (AWS EC2, S3, CloudFormation, Kubernetes)**. Certified by **EDC-IIT Delhi** in Artificial Intelligence Tools and Data Analytics. Passionate about connecting **AI / ML models, IoT devices and web systems** into deployable, scalable solutions.

**Tech Stack:** React, Next.js, Node.js, Express, GraphQL, TypeScript, Python, Flask, Docker, Docker Compose, Kubernetes, AWS EC2/S3, GitHub Actions, Redis, Tailwind CSS, TensorFlow, YOLOv5, OpenCV, MLflow, Streamlit.

## Core Technical Skills

<b>Languages:</b>	JavaScript (ES6+), TypeScript, Python, Java, C, SQL
<b>Frontend:</b>	React, Next.js, Redux, Vite, Tailwind CSS, Responsive UI, GraphQL API integration
<b>Backend:</b>	Node.js (Express), Flask / FastAPI, RESTful API Design, JWT Auth, Middleware, Validation, Error Handling
<b>Databases:</b>	MongoDB, MySQL, PostgreSQL (familiar), Mongoose ORM, Aggregation, Indexing, Schema Design
<b>DevOps &amp; Cloud:</b>	Docker, Docker Compose, GitHub Actions (CI/CD), AWS (EC2, S3, CloudFormation), Render, Vercel, Kubernetes, Nginx
<b>AI &amp; ML:</b>	TensorFlow, OpenCV, Scikit-learn, YOLOv5, Pandas, NumPy, Matplotlib, MLflow, Streamlit, Model Evaluation Metrics (Precision, Recall, F1)
<b>System Design:</b>	Microservices Architecture, Scalability, Caching (Redis), API Rate Limiting, Load Balancing, Logging
<b>Version Control &amp; Tools:</b>	Git, GitHub, Postman, IntelliJ IDEA, VS Code, Linux, Maven, NPM
<b>Soft Skills:</b>	Agile Workflow, Problem Solving, Collaboration, Product Mindset, Leadership

## Highlighted Projects

- 1. Dynamic Full-Stack Portfolio (Secure & Deployed)** [GitHub](#)  
*React, Node.js, Express, MongoDB, JWT, Docker, Render, Vercel, Tailwind CSS, GitHub Actions*  
Created a **dynamic, authentication-enabled portfolio** with **secure JWT + bcrypt auth**, protected routes, and MongoDB Atlas backend. Implemented full CI/CD workflow via **Docker Compose + GitHub Actions**; deployed on Render (back-end) and Vercel (front-end). **Live Link:** <https://portfolio-dynamic-auth.vercel.app/login>  
(For access credentials – please message me on WhatsApp at +91 8830196250.)  
**Impact:** Improved deployment speed by 60 % and enhanced API security via token-based middleware.
- 2. Vybe Ride — JavaFX Ride-Sharing App** [GitHub](#)  
*Java, JavaFX, MySQL, JDBC, Maven, MVC Pattern*  
Developed a modular desktop ride-sharing prototype using **MVC architecture** and real-time MySQL integration.
- 3. AI-Based Autonomous Navigation System** [GitHub](#)  
*Python, TensorFlow, YOLOv5, OpenCV, Raspberry Pi*  
Built a real-time object-detection and path-planning robot (A\* Algorithm). Achieved **95 % navigation accuracy**.
- 4. Real-Time Vehicular Accident Detection & Alert System** [GitHub](#)  
*Python, Flask, ML, IoT Sensors, GSM/GPS*  
Engineered an ML-based accident detector with instant SMS & GPS alerts. Reduced alert latency by 50 %.
- 5. AI/IoT Integration Projects — EDC-IIT Delhi**  
Collaborated on smart automation prototypes combining **TensorFlow, Arduino, Raspberry Pi, and computer vision**. Presented in IIT-EDC demo sessions.

## Professional Experience

**AI/ML Intern — Labmantics (Remote)** Jun 2025 – Present  
Built **ML pipelines and automation scripts** for data pre-processing and predictive analytics. Integrated MLflow for model tracking and evaluation metrics (Precision, Recall, F1). Improved accuracy through feature engineering and hyperparameter tuning; collaborated in Agile team via Git PRs and code reviews.

**IoT & Automation Intern — Blackbug Solutions Pvt. Ltd., Pune** Mar 2023 – Jan 2024  
Worked on **drone automation and sensor network integration**. Handled **telemetry data processing**, hardware testing and documentation of real-time pipelines.

## Education

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**B.E. in Computer Engineering** — PDEA College of Engineering, Pune

2022 – Present

GPA: 7.5 / 10.0

**Higher Secondary (HSC)** — 75 % (2022)    **Secondary (SSC)** — 91.8 % (2020)

## Certifications & Achievements

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- Certified by **EDC–IIT Delhi** in Artificial Intelligence Tools, Data Analytics & Product Management.
- **Letter of Recommendation (EDC–IIT Delhi)** for AI-based research excellence.
- Recognized for **leadership and technical innovation** in automation projects.
- Completed professional tracks: *“AI is the Future”*, *“Self-Made Millionaire Program”*.

## Additional Information

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- GitHub Profile: <https://github.com/jayaschool1981-rgb>
- Dynamic Portfolio (Authenticated): <https://portfolio-dynamic-auth.vercel.app/login>
- Portfolio Website: <https://om-barvekar-portfolio.vercel.app/>
- Familiar with **Agile, Jira, Scrum, Git Branching, PR Reviews, CI/CD Workflows**.
- Interested in roles covering **Full-Stack Development, AI/ML Engineering, Cloud Deployment & IoT Systems**.