OMKAR BHUSNALE

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PROFESSIONAL SUMMARY

Fullstack Web Developer with expertise in React, JavaScript, Node.js and scalable backend systems. Experienced in building high-performance web applications, RESTful APIs, and cloud-based solutions. Strong foundation in Machine Learning, Image Processing, and Industrial Automation, combined with a commitment to clean code principles, test driven development (TDD), and continuous learning.

EDUCATION

DR. DY PATIL INSTITUTE OF TECHNOLOGY

Pune, MH

Bachelor of Computer Engineering

2020 - 2023

Major in Computer Science; Honours in Cyber Security

Cumulative GPA: 9.11/10.0

Relevant Coursework: Image Processing, Software Engineering; IoT; Artificial Intelligence.

MAEER'S MIT POLYTECHNIC

Pune, MH 2017 – 2020

Diploma in Computer Engineering Major in Computer Science

Cumulative Percentage: 91.66/100

WORK EXPERIENCE

General Industrial Controls

Assistant Software Engineer

July 2024 - Present | Pune, India

- Built a React.js-based **Task Management Portal** with a Node.js/Express backend and MongoDB, enabling task tracking, project assignment, and role-based access for employees and managers.
- Architected a separate MVC API server, deployed full-stack solution using Vercel CI/CD, showcasing expertise in React, REST APIs, and modern web architecture.
- Led the development of IoT-integrated **industrial automation** systems, including programming and functional utilities for Genie Pro PLC and SMPS using .NET Core, reducing testing time by 65%.
- Analyzed Conducted comprehensive testing for hardware-software integration while coordinating with cross-functional
 engineering teams to meet production specifications. Mentored junior developers on software architecture best
 practices and technical implementation strategies.
- Automated manual inspection using **vision inspection** techniques with the help of Keyence IV3 Controller, improving production quality by 100%.
- Documented technical processes and created comprehensive user guides to support internal systems effectively.

Graduate Engineer Trainee

July 2023 – June 2024 | Pune, India

- Designed **Automatic Label Printing** for functional test software, which improves **operational efficiency** by **40%**.
- Developed AOI using OpenCV and Image Processing, improving quality by 100% reduced production time by 50%.
- Integrated Label Printing data into Reporting Solution Web-App, resulting in a 40% improvement in production tracking.

Software Engineer Intern

Feb 2023 – Jul 2023, Pune, India

• Worked on **Proof of Concept** for an **AOI**, reducing estimated testing time by 50% through automation.

GeeksForGeeks

Technical Content Writer

Aug 2021 – Jan 2022, Pune, India

- Conducted research and wrote 16 Technical Articles to meet target audience needs. [View]
- Transformed complex technical insights into easy-to-understand, user-friendly content.

PROJECTS

1. Capitalflex Fintech Portal

Feb 2025 - MAY 2025 | Remote

- Technologies: React.js, TypeScript, Node.js, MongoDB, Vercel
- Developed a responsive banking web application enabling users to explore loans, check CIBIL scores, calculate EMI/eligibility, and submit loan applications online.
- Implemented frontend using React.js and TypeScript, with backend services built in Node.js and MongoDB.
- Deployed with CI/CD integration on Vercel, ensuring a smooth and scalable release pipeline.

- Technologies: React.js, MongoDB, TypeScript, React Query, TailwindCSS, Mongoose, Axios, JWT, Vercel
- Engineered a secure and scalable admin dashboard to manage users, loan enquiries, rewards, and transactions.
- Built using React.js, TailwindCSS, and React Query for a fast, interactive UI, and Node.js, Express.js, Mongoose, and JWT for secure API services.
- Enabled role-based access control, data filtering, and analytics with complete admin-side control over financial operations.

3. Task Management Portal

- Technologies: React.js, Node.js, MongoDB
- Led the Development and deployed a Task Management Web Portal using React.js, enabling employees to efficiently
 manage and track their daily tasks linked to assigned projects.
- Implemented role-based authentication and access control to support separate User/Employee and Admin/Manager dashboards.
- Ensured clean and responsive UI for seamless usage across devices, with secure backend APIs supporting data validation and integrity.

4. Searchable PDF Generator

- Technologies: Python, Streamlit, PyPDF2, Tesseract OCR, OpenCV.
- Developed a web application using Streamlit that converts images and PDFs into searchable PDFs using OCR technology.
- Supports batch processing, progress tracking, file merging providing users with an efficient and user-friendly experience.
- Utilized Tesseract OCR for converting text within images or PDFs into searchable text.
- Processes multiple files simultaneously, including mixed file types (images and PDFs).

5. Asset Management Studio

- Technologies : ASP.NET MVC, MSSQL, Entity Framework.
- Developed a web app for organizational use to Manage Assets and their assignments.
- Application is tailored for both Admin and User roles to enhance Asset Tracking and Reporting.
- Provides comprehensive asset and user data with options to export in PDF/Excel formats.
- Delivers visual analytics through Google Charts and Graphs for better decision-making.

SKILLS

Languages: JavaScript, TypeScript, C#, VB.NET, Java, Python

Web & Application Frameworks: React.js, Node.js, ASP.NET (MVC & Web API), WPF, WinForms, Entity Framework, Streamlit Technologies & Tools: Machine Learning, Image Processing, Tesseract OCR,, OpenCV, BarTender SDK, Keyence IV3 Navigator

Databases: Microsoft SQL Server, MongoDB, SQLite **Design Patterns & Architecture:** MVC, MVVM

DevOps & Version Control: Git, GitHub, Gitea, Vercel, Visual Studio, VS Code

Soft Skills: Problem Solving, Communication, Collaboration, Time Management, Teamwork, Ownership & Stewardship.

Course Work Highlights: Object-Oriented Programming, DSA, DBMS, Operating Systems, Computer Networks.

RESEARCH AND PUBLICATIONS

"Smart Travel Automated Vehicle" [View]

International Research Journal of Engineering and Technology (IRJET)

Volume: 07 Issue: 02 | Feb 2020 | e-ISSN: 2395-0056 | p-ISSN: 2395-0072

ACHIEVEMENT

• Dashing Debutant – Generation Next Performer (FY 2023–2024):

Honored for exceptional performance and impactful contributions as a new joiner in the organization. Recognized for excellence in horizontal deployment of the Automatic Label Printing utility across multiple functional testing software platforms.

• Silver Recognition – CII DigiAI (Machine Learning Category):

Secured Silver in the national-level project competition conducted by the Confederation of Indian Industry (CII) for innovative implementation of machine learning concepts in the Netram project.

• Process Optimization Recognition – SMPS Programming:

Awarded for significantly reducing SMPS programming cycle time from 80 seconds to 12–15 seconds by integrating device programming and verification into a single-stage process for production.