

YASH ASHVIN VAIDYA

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SUMMARY:

Full Stack & DevOps Engineer with strong experience across frontend, backend, and cloud infrastructure, building production-grade applications end to end. Experienced in developing responsive frontend interfaces using React, designing scalable backend services with Python and Node.js, and deploying systems on AWS using containerized, event-driven architectures. Hands-on experience delivering full-stack platforms including service management systems, B2B e-commerce applications. Proven track record building and operating cloud automation tools, CI/CD pipelines, and distributed backend systems, alongside advanced platforms such as LLM-powered document intelligence solutions and industrial IoT analytics applications. Skilled in DevOps practices, including Docker-based deployments, AWS App Runner, ECR, IAM, and automated pipelines, with practical exposure to AI/ML integrations, real-time data processing, and enterprise-scale system reliability.

SKILLS & TOOLS:

Web Development: HTML/CSS, JavaScript, Node.js, Express.js, React.js, Next.js, JQuery, PHP

Python Frameworks & AI/ML: OpenCV, Dlib, YOLO, Detectron2,

Cloud & DevOps: AWS EC2, Lambda, Step Functions, DynamoDB, App Runner, ECR, IAM, Docker, CI/CD Pipelines, Kubernetes, Jenkins

Data Management & Analytics: MySQL, PostgreSQL, MongoDB, DynamoDB, SQLite

Visualization: Tableau, PowerBI, Dash

IoT & Telemetry: ThingsBoard, ThingWorx, FactoryTalk DataMosaix, FactoryTalk Optix, MQTT

AI & NLP: Bidirectional Encoder Representation Transformers (BERT), HuggingFace, Langchain, Keras, OpenAI API

Version Control: Github, Bitbucket

EXPERIENCE:

Full Stack & DevOps Engineer (Cloud, AI/ML, Frontend, Backend)

ITHENA: January 2024 – Present

- **Project: AI Chatbot & Document Intelligence Platform**
 - **Clients: Case Engineering, Acuvi, Ignition**
 - Developed and fine-tuned LLM-powered conversational AI applications for domain-specific enterprise use cases.
 - Built document ingestion pipelines supporting PDFs, text, and structured files with vector embedding storage.
 - Enabled semantic search and document-based Q&A using embeddings and retrieval-augmented generation (RAG).
 - Implemented a full-stack AI chatbot interface allowing users to upload files and interact conversationally.
 - Designed usage analytics and monitoring dashboards using Apache ECharts.
 - Focused on scalability, security, and low-latency response handling in production environments.
- **Project: Service Management Ticketing Platform**
 - **Clients: Quantum Design, BPA**
 - Designed and developed a service management and ticketing platform for internal and client-facing workflows.
 - Built a responsive frontend using React, enabling ticket creation, tracking, and status updates.
 - Implemented backend services using Express.js to manage tickets, users, and workflow logic.
 - Integrated AWS SES for automated email notifications and ticket lifecycle updates.
 - Used Google Pub/Sub for asynchronous event handling and message-driven workflows.
 - Containerized services with Docker and deployed using AWS App Runner and ECR.
- **Project: B2B E-Commerce Platform with 3D Visualization**
 - **Clients: AMF, BPA**
 - Built a B2B e-commerce platform with interactive 3D product visualization using Three.js.
 - Developed frontend components using React with performance-focused UI patterns.
 - Implemented RESTful backend services using Express.js and Sequelize ORM.
 - Designed and managed MySQL databases for products and transactions.
 - Deployed and maintained production workloads on AWS EC2.
 - Improved UX through responsive design and optimized rendering.
- **Project: Industrial IoT Performance Monitoring & Analytics**
 - **Clients: Mondeleze, AMF**
 - Designed industrial IoT monitoring solutions for real-time sensor and device performance visibility.
 - Integrated telemetry pipelines using ThingsBoard, FactoryTalk DataMosaix, and FactoryTalk Optix.
 - Built robust pipelines to ingest, clean, and normalize high-frequency time-series data.

- Developed machine learning models for anomaly detection and early fault identification.
- Enabled predictive analytics dashboards to improve operational efficiency and reduce downtime.
- Collaborated with cross-functional teams to align analytics with business KPIs.
- **Project: Cloud Infrastructure Automation & Management**
 - **Clients: Acuvi**
 - Designed and delivered cloud-native infrastructure on AWS using Lambda, EC2, Step Functions, DynamoDB, App Runner, and ECR.
 - Built automation workflows to start, stop, and monitor EC2 instances, reducing idle cloud costs and improving utilization.
 - Developed internal tooling to manage infrastructure lifecycle and deployments with minimal manual intervention.
 - Implemented IAM policies, role-based access control, and security best practices across environments.
 - Optimized cloud resource usage through cost monitoring, tagging strategies, and performance tuning.
 - Ensured high availability and fault tolerance for production workloads.
- **Project: Scalable Backend Services & CI/CD Enablement**
 - Designed and implemented scalable backend services using Node.js, Express, and Python.
 - Exposed secure REST APIs supporting frontend, IoT, and AI-driven applications.
 - Containerized services using Docker and deployed via AWS App Runner.
 - Built and maintained CI/CD pipelines for backend, frontend, and ML services.
 - Improved deployment reliability through automated testing and environment isolation.
 - Supported rapid feature delivery while maintaining system stability.

Independent RA,

Buffalo: February 2023 - December 2023

- **Project: Computer Vision Research & Prototyping**
 - Conducted in-depth literature surveys on YOLOv4 and Detectron2 to support faculty research.
 - Authored comprehensive research documentation for Python and OpenCV-based projects.
 - Designed and implemented image and video processing systems covering object detection and segmentation.
 - Developed facial recognition pipelines using deep learning and classical CV techniques.
- **Project: Vision-Based Monitoring Systems**
 - Built real-time computer vision monitoring systems using Python, OpenCV, YOLO, and Dlib.
 - Implemented detection and recognition pipelines for image and video streams.
 - Validated experimental results and optimized models for accuracy and performance.

Web Developer,

GodJN Solutions, Mumbai: June 2021 - August 2021

- **Project: Website Modernization & SEO Optimization**
 - Developed frontend features using HTML, CSS, JavaScript, and AJAX.
 - Collaborated with backend teams for seamless feature integration.
 - Led UI/UX modernization initiatives to improve navigation and usability.
 - Optimized SEO performance and site speed.
 - Achieved 30% growth in organic traffic and 25% increase in user engagement.
- **Project: Android Sensor Monitoring Application**
 - Developed an Android application to capture and display real-time sensor data from mobile devices.
 - Implemented sensor integration for accelerometer, gyroscope, and other device sensors.
 - Built responsive UI components using XML in Android Studio.
 - Processed and visualized live sensor streams for monitoring and diagnostics.
 - Ensured efficient background processing and data accuracy.

CERTIFICATIONS:

- **AWS Certified Cloud Practitioner - 2024**

EDUCATION:

- Master of Science: Engineering Sciences, Robotics, SUNY University at Buffalo, Dec 2023.
- Bachelor of Science: Computer Engineering, Mumbai University, K. C. College of Engineering, May 2022.
- Diploma: Computer Engineering, Maharashtra State Board of Technical Education, May 2019.