Harshal Patil

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EDUCATION

Sharma Sadhna College of Engineering India
Bachelor of engineering (Computer), *2021-2024*

EXPERIENCE

Bray Leino Labs (Mezzo Labs Ltd) — Software Development Engineer 2024 – Present
Pune, India

- Building production-grade AI products using **LLM-based agents, RAG pipelines, and vector search**, improving internal workflow automation and knowledge retrieval accuracy by 30%.
- Designed and integrated AI features end-to-end, including prompt engineering, evaluation loops, and model fine-tuning, taking solutions from proof-of-concept to production.
- Working as a full-stack engineer across frontend and backend systems, delivering scalable features from development through deployment with clean APIs and reliable data flows.
- Deployed and operated cloud-native systems on **Azure and GCP**, setting up CI/CD pipelines, containerized services, and environment-specific configurations.
- Created insight-driven dashboards to monitor AI outputs, system performance, and usage patterns, enabling product and business teams to make data-backed decisions.
- Contributing at the **architecture and solution design level**, balancing technical feasibility, scalability, cost, and business impact while collaborating closely with product stakeholders.

Kesowa Infinity Venture - Full Stack Developer 2023 – Present
Kolkata, India

- Built and scaled end-to-end GIS platforms using React, React Native, and Tailwind CSS, enhancing UI responsiveness by 40% and delivering a unified experience across web and mobile.
- Designed microservices using Go, Node.js, and Rust, powering mission-critical drone data pipelines and achieving 50% faster processing of terrain and raster data layers.
- Integrated AI models for image classification and terrain elevation analysis into backend workflows, cutting manual QA time by 75% and improving system intelligence for geospatial insights.
- Automated DevOps workflows with Docker, GitHub Actions, and Kubernetes, reducing deployment times by 60% and achieving 98.9% uptime with robust logging and monitoring.
- Developed secure REST APIs and real-time data layers using Deck.gl, Mapbox, and WebSockets, enabling high-performance rendering of complex geospatial datasets with latency under 300ms.

GeeksforGeeks - Technical Content Writer 2023 – 2024
Delhi, India

- Authored and published 30+ high-quality technical articles, covering Machine Learning, Blockchain, MERN Stack, Linux, Python, Java, DSA, and Databases — contributing to a global community of 1M+ monthly readers.
- Ranked in the top contributor list for multiple months by consistently delivering SEO-optimized content that improved organic engagement by 20%.
- Managed editorial workflows with Jira and Git, reducing turnaround time by 35%.
- Explained complex concepts like cloud-native architectures and algorithms through accessible tutorials, empowering learners globally.

Microsoft - Project Intern 2022 – 2023
Remote, India

- Completed a Microsoft-led internship focused on Azure cloud services, gaining hands-on experience in deploying and managing scalable web apps and infrastructure.
- Built and deployed cloud-based web applications using Azure App Services, Blob Storage, and CI/CD Pipelines, reducing deployment time by 40%.
- Learned and applied cloud computing concepts like IaaS, PaaS, serverless architecture, and virtual networking to real-world scenarios.
- Worked in Agile sprints with Azure Boards, contributing to project planning, task execution, and final demo presentations.

PROJECTS

AI Agent Automation for Technical Writing | *LLMs, CrewAI, LangChain, Prompt Engineering, Streamlit* GitHub Link
- Designed and deployed an AI agent framework that automates technical research and content writing, reducing manual effort by 80% and accelerating content delivery.
- Integrated CrewAI agents with GPT-4 and open-source models using LangChain and Streamlit for real-time streaming, task delegation, and memory management.

NGO Fundraising Application | *MERN Stack, Blockchain (Solidity), Smart Contracts* GitHub Link
- Led the development of a blockchain-based platform to enhance NGO fundraising transparency and security.
- Implemented smart contracts for wallet verification and integrated decentralized consensus for immutable transaction records.

Universal Translator | *Python, Flask, NLP, LLMs, OpenCV* GitHub Link
- Developed an AI-powered tool for text-to-text translation and multilingual formatting across various content types.

- Integrated LLMs with Flask to perform context-aware translation, enhancing multilingual content accessibility.

Easymilega – Booking App & Website | *React Native, WordPress, SEO* Play Store Link
- Built a cross-platform services booking app and SEO-optimized website, achieving 800+ downloads and top-10 local search ranking.
- Implemented Firebase authentication, real-time bookings, and a service provider interface for seamless end-to-end management.

ACHIEVEMENTS

Smart India Hackathon – Finalist
- Twice selected as a national finalist in the Smart India Hackathon, organized by the Ministry of Human Resource Development (MHRD).
- Worked on innovative NLP-based problem statements proposed by government agencies, showcasing AI-driven solutions at the national level.

Google Solution Challenge
- Participated in the Google Solution Challenge, organized by Google.
- Built a real-time Accident Registration App using Flutter and Firebase, aimed at improving emergency response systems.

Accenture Innovation Challenge 2022
- Reached the semi-finals among nationwide participants.
- Proposed and developed a digital automation solution with real-world enterprise impact, evaluated by Accenture experts.

Rajasthan IT Day Hackathon
- Shortlisted for the Rajasthan IT Day Hackathon, sponsored by iNeuron, Physics Wallah, and the Government of Rajasthan.
- Built and presented a blockchain-based transparency project to the Honorable Chief Minister of Rajasthan.

TECHNICAL SKILLS

Languages: Python, Golang, Java, JavaScript (ES6+), TypeScript, Rust, C++, Solidity, SQL (PostgreSQL)
Frameworks & Libraries: React.js, Vue.js, Next.js, Angular, Flask, Django, Express.js, Node.js
Developer Tools: Git, GitHub, GitLab, VS Code, Cursor, Jira, Docker, AWS Cloud9, Postman, Swagger, API Testing Tools, Code Review Tools
Concepts & Technologies: RESTful APIs, Microservices, Blockchain (Smart Contracts), LLMs, Prompt Engineering, DevOps CI/CD, NLP, Cloud Computing (Azure, AWS)