

# Palak Singh

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## Education

**Vellore Institute of Technology**  
B.Tech in Computer Science - 8.7 GPA

Bhopal, MP  
Sept 2023 – present

## Experience

### SDE Intern

My Trip Goals

Noida, UP  
Sept 2024 – Feb 2025

- **Developed** a scalable Travel Dashboard with Next.js and MongoDB, enhancing user experience for 1,000+ internal employees and improving task efficiency.
- **Designed** a high-performance chat/notification system, optimizing backend infrastructure to reduce latency by 15% and improve real-time user engagement.
- **Automated** critical admin workflows using React Hooks and Zustand, boosting operational efficiency 20% and significantly reducing manual errors.

## Projects

### DeployX: Effortless Multi-Cloud Deployment Platform

- **Automated** GitHub-to-production deployments within DeployX, leveraging CI/CD pipelines and infrastructure-as-code principles, resulting in an 80% acceleration of software delivery cycles.
- **Integrated** Llama LLM for AI-powered code assessment, enabling proactive identification and remediation of over 90% of potential vulnerabilities, and ensuring deployment readiness.
- **Orchestrated** and managed over 5 multi-cloud deployments (AWS, Azure, GCP) using Docker and Kubernetes, ensuring high availability, scalability, and resource optimization across diverse cloud environments.

### SafeSurf Jr AI-Powered Child Safety Solutions: Design, Development, Validation.

- **Engineered** a Chrome extension leveraging JavaScript and Transformer models to provide AI-powered filtering of online content, achieving a 95%+ accuracy rate in identifying and flagging potentially harmful material.
- **Developed** real-time, cross-platform cyberbully filters for Instagram and Twitter using optimized algorithms and caching strategies, achieving a sub-100ms latency to minimize user impact.
- **Led the development** of SafeSurf, a child safety application validated by MP Police, resulting in securing pre-seed funding and achieving patent-pending status, demonstrating impactful contributions to public safety.

## Achievements and Certifications

1× **Hackathon Winner:** CodeVerse

**Google Summer of Code (GSoC) Contributor:** Recognized among the top 15% of global participants.

**Organized** and led AWS workshops on EC2, S3, and Lambda, effectively mentoring peers at VIT.

**DSA:** Solved 450+ DSA problems: and achieved a 200-day streak on LeetCode

**Deloitte Technology Job Simulation**

(09/2024)

**Microsoft Certified Azure Fundamentals**

(05/2024)

## Publications

**Leveraging Kubernetes for LLM Deployment (IJFMR)**

Jan 2025

Palak Singh, Harsh Srivastava, Shikhar Srivastava, Ayushi Jaimani

## Skills

**Languages:** Java, Python, TypeScript, JavaScript

**Technologies:** Spring Boot, Node.js, React.js, Express.js, Next.js, FastAPI

**Database:** PostgreSQL, MongoDB, MySQL, Supabase

**DevOps:** AWS, Azure, Docker, Kubernetes, Terraform, CI/CD Pipelines, Jenkins

**Tools & Version Control:** Git, GitHub Actions, TensorFlow, Amazon SageMaker, GraphQL

**System Design & Scalability:** Load Balancing, Caching, CDN, Event-Driven Architecture, Multi-Tenancy