

Vikas Kumar

Software Engineer | Full-Stack Developer | MERN Stack Developer | Backend Developer | Frontend Developer | Devops Engineer | React | Node.js
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SUMMARY

Software Engineer and Full-Stack Developer with hands-on **MERN Stack** experience from a **Full Stack Developer Internship at CyberWarFare Labs**, building and deploying **15+ REST APIs** with **JWT authentication** and **RBAC** for a production cybersecurity platform. Built full-stack projects like **QuickStay** and an ML-based **SupportAgentAI** system. Strong foundation in **Data Structures & Algorithms**, **OOP**, **DBMS**, **Operating Systems** and **Computer Networks**, with **600+ DSA problems** solved. Immediately available for Software Engineer roles.

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, C++, C, HTML, CSS

Frontend: React.js, Bootstrap, Tailwind CSS, Responsive UI Design

Backend: Node.js, Express.js, REST APIs, JWT Authentication, Role-Based Access Control (RBAC), Redis, Caching, SMTP

Databases: MongoDB (NoSQL), PostgreSQL, Firebase, Indexing, Query Optimization

Cloud, DevOps & Tools: AWS, Docker, Kubernetes, Git, GitHub, Postman, Vercel, Render, VS Code, Jupyter Notebook

Machine Learning: Scikit-learn, Pandas, TF-IDF, Logistic Regression

Core CS: Data Structures & Algorithms (DSA), OOP, DBMS, Operating Systems, Computer Networks

EXPERIENCE

Full Stack Developer Intern - CyberWarFare Labs

Jun 2026 – Sep 2026 | Bengaluru

- Enhanced the CTF platform's user & admin panel with responsive UI components using **React.js** and **Bootstrap**, improving usability and UI consistency across **10+ core modules** and reducing user-reported UI issues by **30%**.
- Developed and deployed **15+ REST APIs** using the **MERN Stack** with **JWT authentication** and **Role-Based Access Control (RBAC)**, validating **20+ API workflows** via **Postman** for secure frontend-backend integration.
- Configured an **SMTP**-based email notification system for automated transactional emails (account verification, password reset, challenge alerts) serving **1000+ platform users**, improving communication reliability and engagement.
- Implemented **Artifact** and **Lab Challenge** modules with isolated **VPN** and **Kubernetes**-based lab environments, enabling scalable hands-on cybersecurity training with concurrent multi-user access.

PROJECTS

QuickStay — Hotel Booking Platform | [Live](#) | [GitHub](#)

Jun 2025

Stack: React.js, Node.js, Express.js, MongoDB, Clerk Auth, Tailwind CSS

- Engineered a full-stack hotel booking platform with **real-time search** and **secure bookings** across **500+ hotel listings** using **React.js**, **Node.js** and **MongoDB**.
- Optimized frontend-backend communication through **indexing** and **query optimization**, reducing **API response time by 35%**.
- Built an **adaptive pricing engine** and intelligent room filters, cutting irrelevant search results by **50%** and improving booking conversion accuracy by **25%**.

SupportAgentAI — Customer Support Automation | [GitHub](#)

Sep 2026

Stack: Python, Scikit-learn, TF-IDF, Logistic Regression, Pandas

- Engineered an end-to-end **customer-support automation system** that classifies intents, retrieves historical responses, detects risk and routes requests for auto-handling or human review.
- Processed a **2.8M+ tweet** support dataset into **149,680** cleaned customer-support pairs and built a **TF-IDF + Logistic Regression** pipeline across **10 intent classes**.
- Implemented **TF-IDF cosine-similarity retrieval** with a **200,000-feature index** and leakage-free evaluation, achieving **49.00% intent accuracy** and **49.75% Macro F1** on a 200-example human-gold benchmark.
- Developed **deterministic risk-based escalation** using confidence/retrieval thresholds and security, payment and legal rules; validated with **100% escalation recall** and **10/10 regression tests** passed.

EDUCATION

B.Tech in Mechatronics Engineering - IIIT Bhagalpur

Nov 2022 – May 2026

CGPA: 7.4 | Relevant Coursework: Data Structures & Algorithms, Operating Systems, Computer Networks, DBMS, OOP

CERTIFICATIONS

- The Complete Web Development Bootcamp** - Udemy, Angela Yu (2025) | [View Certificate](#)
- AWS Cloud Practitioner Essentials** - AWS Training & Certification (2026) | [View Certificate](#)

ACHIEVEMENTS

- Smart India Hackathon 2024** - Selected in the inter-college round out of **200+ teams**; presented an **AI-based solution** to a real-world government problem statement. [View Certificate](#)
- Competitive Programming:** Solved **600+ DSA problems** across LeetCode, CodeChef and Codeforces; maintained a **450+ day streak** on CodeChef and a **150+ day streak** on LeetCode.

- **Carrom Champion:** Secured **1st position** in Team Carrom at Udyatva Inter-College Sports Fest 2025.