

# JAYAKISHAN B

Phone: +91 9585820900 | Email: [jayakishanb18@gmail.com](mailto:jayakishanb18@gmail.com)  
LinkedIn: [Jayakishan Balagopal](#) | GitHub: [kishan0818](#) | LeetCode: [kishan0818](#) | [Portfolio](#)

## EXECUTIVE SUMMARY

Pre-final year B.Tech IT student with strong interests in Machine Learning, AI, Full-stack Development, and Cybersecurity. Experienced in building data-driven systems and deploying end-to-end solutions through real projects and internships. Motivated to learn continuously and experiment with new technologies and contribute to practical real-world solutions.

## EDUCATIONAL QUALIFICATION

**Sri Ramakrishna Engineering College** – B.Tech Information Technology 2023 - Present  
CGPA: 8.44 (till 5th semester)

**SBOA Matriculation and Higher Secondary School** – HSC 2022 - 2023  
Percentage: 81.89%

## INTERNSHIPS

**AI and Cloud Intern** – Edunet Foundation and IBM SkillsBuild Sept 2025 - Oct 2025

- Completed a 4-week AI and Cloud virtual internship, working on end-to-end AI workflows and deployments.
- Executed cloud-based ML pipelines and 5+ hands-on labs, applying end-to-end AI workflows.
- Earned certification through IBM SkillsBuild, covering AI lifecycle, cloud basics, and deployment concepts.

**Mobile App Development Intern** – Resilience Business Grids LLP Dec 2024 to Jun 2025

- Deployed a Flutter-based chatbot system supporting media uploads and intelligent responses, handling 100+ user queries during testing.
- Reduced manual support dependency by 30% through chatbot streamlining and structured query flows.
- Built the solution as a scalable internal tool, designed for future cross-platform integration across 2 platforms.

## PROJECTS

**SREC Utsava 2026 - National Techno-Cultural Symposium Platform**

- Architected a production-ready symposium platform with integrated payments, serving 8,281+ visitors, 56,662 page views, and actively maintaining its live deployment.
- Technologies: Next.js 15, TypeScript, Tailwind CSS, Supabase, Framer Motion

**AI-Powered ICU Patient Flow Coordinator** (GE HealthCare - Consultancy Project)

- Designed an ICU bed allocation model using XGBoost and Logistic Regression, improving triage decisions by 25-30% and streamlining approvals to optimize patient flow.
- Technologies: Next.js 15, TypeScript, FastAPI, XGBoost, Logistic Regression, Python

**AI-Driven Drug Discovery and Genomic Analysis Framework** Jan 2026

- Constructed a hypoxia-aware, explainable AI framework for cancer drug discovery by integrating population genomics with ensemble ML models (Random Forest, XGBoost, Gradient Boosting) and SHAP + RAG-based explanations.
- Technologies: Python, FastAPI, Random Forest, XGBoost, Gradient Boosting, SHAP, RAG.

**SmartUzhavan – Intelligent Agriculture Advisory Mobile App**

- Delivered a production-grade Android app using TypeScript, Tailwind CSS, and Capacitor, integrating ML-based crop recommendations, real-time weather/market APIs, and a low-latency emergency alert system with multilingual SMS and automated calls via Twilio.
- Technologies: TypeScript, Capacitor, Tailwind CSS, REST APIs, Machine Learning, Twilio API

**Explainable AI-Based Financial Guidance System** (Ongoing)

- Implementing an interpretable ML model with SHAP and counterfactuals, along with a dashboard improving user clarity and trust by 30-40% in prototype testing.
- Technologies: Next.js 15, TypeScript, FastAPI, Python, XAI, SHAP, Supabase

**AI-Powered Cyber Triage System for Real-Time Threat Detection**

- Engineered a real-time DoS/DDoS detection system using Random Forest with automated IP blocking, improving incident response time by 40%.
- Deployed real-time traffic monitoring and alerting to enable faster threat identification and mitigation.
- Technologies: HTML, CSS, Random Forest, Flask, Cybersecurity, Windows Firewall Automation.

## AI-Driven Nocturnal Elephant Detection and Deterrence System

- Established a YOLOv8-based wildlife detection system achieving 90%+ low-light accuracy with multilingual alerts and IoT monitoring.
- Technologies: YOLOv8, Raspberry Pi, OpenCV, IoT, Twilio API

## TECHNICAL SKILLS

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**AI/ML:** TensorFlow, CNNs, YOLOv8, Random Forest, XGBoost, Ensemble Models, Explainable AI (SHAP)

**Programming Languages:** Python, Java, C++, C, SQL

**Frontend:** TypeScript, React, Next.js, Tailwind CSS

**Backend:** Node.js, FastAPI, REST APIs

**Cybersecurity:** DoS/DDoS Detection, Log Analysis, Threat Mitigation

**DevOps and Cloud:** Docker, Git/GitHub, AWS, Vercel, Supabase

**Core Concepts:** MLOps, Model Deployment, API Integration, Cloud-Native Systems

## ACCOLADES AND AWARDS

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- Finalist – InnoHack'26 (VIT Vellore) – Shortlisted among top 21 teams out of 225+ nationwide under AI and ML track
- Certificate of Recognition – GE HealthCare Consultancy – AI-powered ICU Patient Flow Coordinator
- 1st Place – Human-Animal Conflict Hackathon – AI-driven Nocturnal Elephant Detection System (Rs.25,000 cash prize)
- Winner – Innovators Icon Award, Hack24 – AI-powered Lung Disease Prediction System
- 1st Place – Protovision, Technovate 2025 – AI-powered Cyber Triage System
- 1st Place – Paper Presentation, Youthzest 2024 – Technical paper on Neuralink
- 3rd Place – Pitch Perfect, Business Plan – AI solution for Medical Kits Management
- 3rd Place – Poster Presentation, Ecocity Pitch – AI-powered Adaptive Traffic Management
- 3rd Place – Idea Pitch, AI Week 2025 – AI solution for Drone Defense and Attack

## CERTIFICATIONS

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- IBM SkillsBuild – Artificial Intelligence Fundamentals
- IBM SkillsBuild – Web Development Fundamentals
- AWS Skills Builder – Building Language Models in AWS
- MongoDB University – MongoDB Basics for Students (13 Skill Badges)

## CO-CURRICULAR ACTIVITIES

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- Executive member of the Research and Innovation for Student Empowerment – SREC
- Executive member of the Computer Society of India – Student Branch, SREC
- Executive Co-Chairperson of Road Safety Vertical (2024-2025) – YI Yuva Club, SREC
- Member of Phorartz Club, SREC

## DECLARATION

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I hereby confirm that the information provided above is accurate and true to the best of my knowledge.

**JAYAKISHAN B**