

PRABU JAYANT

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EDUCATION

RV College of Engineering, Bangalore 2022 – 2026
B.E. Computer Science (Cybersecurity), GPA: 8.75
Relevant Coursework: Data Structures, Algorithms, Operating Systems, Computer Networks, Database Systems, Machine Learning

EXPERIENCE

🏢 **Baker Hughes** — *Software Engineering Intern* Jan 2026 – Present

- Engineered a **Full-Stack AI-assisted product classification platform** utilizing **React frontend**, **Flask RESTful backend**, and **PostgreSQL** database, enabling structured request intake, regional queues, and partner classification workflows at enterprise scale.
- Designed and implemented a **robust database schema** managing classification requests, part-line items, attachments, and audit trails with support for scalable querying, filtering, and autocomplete exports via optimized SQL queries.
- Integrated **Hybrid BERT-CNN text model** for AI-powered HS code predictions with **human-in-the-loop review**, enabling classifiers to validate, modify, and approve results while maintaining compliance and auditability.
- Deployed and validated the entire application on **Microsoft Azure**, ensuring cloud readiness, secure backend services, and compatibility with enterprise environment standards.

🏢 **Juniper Networks** — *Software Engineering Intern* Jul 2024 – Feb 2025

- Engineered a high-throughput **SSL proxy-based data pipeline** using **Python automation scripts**, enabling real-time decryption and monitoring of SaaS traffic while strictly adhering to **Security Best Practices**.
- Developed a **Full-Stack classification service**, achieving **98% accuracy** for known services via **performance tuning** and **backend optimization**, providing consistent behavioral insights for enterprise-level visibility.
- Collaborated in a **Hybrid agile environment** to design validation models that improved network reliability across diverse architectures, resulting in a significantly **large-scale validated dataset** for production-grade ML models.

PROJECTS

🔗 **CoLab: Real-Time Collaborative Platform** — *TypeScript, React, Node.js, Redis, PostgreSQL*

- Designed a **distributed web architecture** using **CRDTs** and **WebSockets** to enable low-latency multi-user collaboration; optimized **PostgreSQL** persistence via **Prisma ORM** for high-concurrency document handling.
- Orchestrated an end-to-end **CI/CD pipeline** using **GitHub Actions** for automated unit testing and deployment, leveraging **Docker** for consistent environment management across the development lifecycle.
- Integrated **JWT-based authentication** and session handling with **Redis**, ensuring adherence to **Full-Stack security** standards.

🔗 **DefenSys: Intelligent Cyber Defense Platform** — *Python, Flask, React, Docker, Redis*

- Developed a **Full-Stack platform** featuring a **React dashboard** for real-time visualization of network threats; utilized **Docker** and **Kubernetes basics** to manage containerized IoT network simulations.
- Engineered an **automated defense mechanism** for **DDoS mitigation** using a **Redis-backed message queue** for asynchronous task handling, resulting in a resilient and **scalable web application** prototype.

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Java, TypeScript, JavaScript
Frontend: React.js, Next.js, Redux, HTML5, TailwindCSS
Backend & Systems: Node.js, Express.js, Flask, REST APIs, GraphQL, Microservices Architecture
Databases: PostgreSQL, pgvector, MongoDB, Redis, Firebase/Firestore, SQL Data Modeling, Query Optimization
AI / Machine Learning: PyTorch, TensorFlow, Transformers (BERT), CNN, LSTM, NLP, LangChain, LangGraph, RAG, OpenAI API, Prompt Engineering
Cloud & DevOps: Microsoft Azure, AWS, Docker, GitHub Actions (CI/CD), Git, Bash, PowerShell
Distributed Systems: CRDTs, WebSockets, Redis Queues, Concurrent Systems Design
Core CS: Data Structures & Algorithms, System Design, Operating Systems, Computer Networks

ACHIEVEMENTS & LEADERSHIP

- Leadership:** Event Management Lead at **GDSC-RVCE**; spearheaded the **Tech Tank Hackathon** for **500+ students**, managing end-to-end operations, technical infrastructure, and student collaboration.
- Awards:** Secured **4th place** in **CODE RED'25 Hackathon** (Top 1% of 1000+ teams) and ranked **Top 10** in **ELCIA Next-Gen Hackathon** (IIITB) for engineering innovative, secure, and scalable software solutions.
- Publications:** Co-authored 4 peer-reviewed papers (IEEE Access / ICCNC / ICWIMI / ICoICI) on **Applied ML for SaaS**, **LSTM-based Intrusion Detection**, and **IoT Health Anomaly Detection**, with **25+ citations**.