

# Akash Kolde

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LinkedIn | GitHub

## Education

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**Ramaiah Institute of Technology, Bangalore** | 2023 – 2026

Bachelor of Engineering, Computer Science Engineering (Cyber Security)

**Government Polytechnic Kalaburagi** | 2020 – 2023

Diploma in Computer Science Engineering

## Projects

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**Honeypot – AI-Powered Threat Detection Dashboard** (GitHub)

Cyberattack monitoring dashboard with ML-based threat detection and real-time analysis capabilities.

- Built AI classification system using ML algorithms for attack vector identification with high accuracy
- Developed responsive dashboard with real-time metrics, IP detection, and automated alerts
- Implemented Docker containerization for scalable deployment architecture
- Tech Stack: React.js, Express.js, MongoDB, Python (Scikit-learn), Docker, Redis

**PsychPal – Federated Mental Health Companion** (Student Innovation Program - Unisys)

Privacy-preserving mental health chatbot using federated learning and transformer-based NLP.

- Implemented federated learning for decentralized training while preserving user data privacy
- Integrated PubMedBERT for contextual mental health query understanding and responses
- Designed secure communication with end-to-end encryption for health data protection
- Tech Stack: PyTorch, Huggingface Transformers, PySyft, Flask, SQLite

**Chattr – Real-time Collaboration Platform** (Live)

Real-time web application for communication, file sharing, and room-based collaboration.

- Built anonymous group chat with real-time messaging, typing indicators, and file transfer
- Implemented WebRTC for P2P communication and Socket.io for low-latency messaging
- Added room management with admin controls and message history search
- Tech Stack: React.js, Socket.io, Node.js, WebRTC, MongoDB

**POSIX Shell Implementation** | Custom command-line shell with UNIX behaviors and piping support

- Developed 15+ built-in commands with file operations, process management, and I/O redirection
- Added command history, tab completion, and background process execution

**Spring Boot Authentication System** | Enterprise-grade secure authentication with JWT and RBAC

- Implemented JWT authentication with refresh tokens and role-based access control
- Added BCrypt encryption, session management, and brute-force protection

## Skills

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**Frontend:** React.js, Socket.io, WebRTC, Tailwind CSS, HTML5/CSS3

**Backend:** Node.js, Express, Spring Boot, REST/WebSocket APIs

**Databases:** MongoDB, MySQL, Redis

**DevOps:** Docker, AWS EC2, CI/CD Pipelines

**Security:** JWT, SSL/TLS, Honeypot Systems, Threat Detection

**AI/ML:** Scikit-learn, Pandas, Python

## Achievements

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**Student Innovation Program - Unisys**

Cleared first round of competitive industry mentorship program for AI/ML innovation projects.

## Certifications

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**Software Engineering - NPTEL (IIT Kharagpur)** [View]

**AWS Cloud Foundations** [Credly]

**Google Cloud Cybersecurity** [Credly]