Krishna Tripathi

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EDUCATION

Indian Institute of Information Technology, Nagpur

B. Tech in Computer Science and Engineering

Dec 2021 – May 2025 Nagpur, India

TECHNICAL SKILLS

Languages: C, C++, JavaScript, TypeScript, Go, Python, Java

Frameworks & Tools: ReactJS, Node.js/ExpressJS, EchoLabstack (Go), TailwindCSS, Git, Docker, PostgreSQL, YugabyteDB, MongoDB, Python (Pandas, NumPy), SQL, BigQuery

EXPERIENCE

YugabyteDB

Sept 2024 - Present

Bengaluru, India

Software Engineer Intern ightarrow Software Engineer I

- Integrated YugabyteDB embedding store into LangChain4j, enabling vector similarity search with HNSW indexing and reducing query latency by 15%. (commit docs)
- Implemented plpython extension in YugabyteDB, enabling in-database Python execution for 500+ vector operations per second while improving data security by 60% by containing sensitive operations within the database.
- Engineered Copilot for Voyager (DB migration tool) using LangGraph, Python, and MCP, implementing RAG architecture for conversational migration assistance with automated cron jobs for real-time documentation updates.
- Conceptualized and constructed intuitive UI for Voyager, Yugabyte's open-source migration tool, streamlining database transitions and enhancing user experience for 100+ users.
- Designed xCluster backend services (Go) and UI, improving data resiliency by 40% and optimizing DR node selection, reducing response time from 450ms to 120ms.
- Integrated lag metrics in C++ for Prometheus and UI visualization, optimizing APIs to improve response times by 35%.
- Optimized Go test pipelines using Jenkins and Groovy scripts, running tests pre-deployment instead of on every commit, reducing CI/CD runtime by 40% and saving 3+ hours daily in build times.
- Architected web scraping pipeline using TypeScript and Cheerio on Cloud Run Functions (runs every 3 days), performing data analysis on growth metrics, pushing to BigQuery with Looker Studio dashboards for data visualization and business intelligence.
- Established end-to-end data pipeline using Go on Cloud Run Jobs (executes daily), processing GCS bucket data through MadKudu for lead scoring and deal management, syncing to Salesforce CRM, improving sales operations by 45%.

Zluri

Aug 2024 - Sept 2024

Software Engineer Intern

Bengaluru, India

• Resolved 13+ critical bugs using JavaScript/Node.js and MongoDB, created comprehensive testing and validation framework with QA dashboards, improving system reliability by 20%, query performance by 30%, and test coverage by 20%. Performed data analysis and collaborated with QA on CI/CD.

PROJECTS

CineSphere: Movie Discovery Platform

April 2024 - Present

ReactJS, Node.js, YugabyteDB, Sequelize, Docker, GitHub Actions, TailwindCSS, Redux Toolkit

SOURCE CODE | LIVE DEMO

- Integrated YugabyteDB with Sequelize ORM and SSL, ensuring 99.9% uptime for 100+ MAU and accelerating gueries by 40%.
- Configured intelligent caching via GitHub Actions (3x daily TMDB sync), reducing API costs by 75% and page load from 3.2s to 1.8s. Deployed JWT refresh token rotation with HTTP-only cookies for zero XSS vulnerability.
- Engineered features: Graph-based social network (BFS for friend recommendations), rich-text editor (DOMPurify XSS sanitization), serverless Vercel deployment with CI/CD.
- Launched lazy loading and Framer Motion animations, decreasing average page load time by 450ms and improving initial perceived performance for first-time users by at least 25%.

Open Threads Reminder: AI-Powered Slack Bot

July 2025 - Present

VertexAI, Slack API, Go, Python, ReactJS, PostgreSQL, GCP

SOURCE CODE | VIDEO DEMO

- Developed enterprise Slack agent using VertexAl for intelligent thread classification and RAG retrieval system integrating GitHub/JIRA/docs for duplicate detection, achieving 90%+ confidence scores and preventing 95% of critical bugs from falling through cracks.
- Deployed full-stack solution on GCP with Go backend, React dashboard, and PostgreSQL, reducing incident response time by 50% through automated communication, cross-team collaboration, and tracking.

ACHIEVEMENTS

- Knight level (1994 Top 2.58%) on LeetCode (430K+ users), 3-star (1735 Top 4.2%) on CodeChef (200K+ users).
- 3rd place in Algorithmia Coding Contest, Tantrafiesta 2023, IIIT Nagpur. Ranked 426th in CodeChef Starters 113 Div 2 (11K+ participants).