DAKSH KUMAR

Rewari, Haryana 123401

📞 768-899-2293 ✉ rao.daksh555@gmail.com 🔗 LinkedIn ⚙ Github 🌐 Portfolio

Education

Indian Institute of Information Technology - Sri City   **Apr 2023 – Present**
Bachelor of Technology in Computer Science and Engineering   *Sri City, Andhra Pradesh*
CGPA: 8.89/10.0

Relevant Coursework

- Data Structures
- Cloud Computing
- Database Management
- Artificial Intelligence
- Operating System
- Computer Networks
- Computer Architecture
- OOP's
- Machine Learning
- Computer Vision
- HPC

Experience

SmallGroup   **Aug 2025 – Jan 2026**
Full-Stack Engineering Intern   *Remote*

- Engineered a full-stack stock scoring platform for **1,000+** U.S. equities using **Next.js** and **FastAPI**, enabling users to evaluate and compare stocks based on multiple financial and performance metrics.
- Designed and Implemented REST APIs to compute and serve stock scores, reducing client-side computation and improving page load times by **30%**.
- Constructed an automated environment management and **self-deployment system** across **5+** microservices on **GCP**, improving deployment consistency and rollback safety.
- **Automated CI/CD pipelines** and service orchestration, cutting manual deployment effort by **60%** and reducing configuration drift across **dev** and **prod** environments.
- Collaborated with a cross-functional team of engineers to standardize deployment practices, accelerating release cycles and improving production stability.

Enigma Club   **Oct 2023 – Present**
Co-Lead   *College*

- Coordinated and conducted Capture The Flag (CTF) sessions, helping participants develop skills in reverse engineering, cryptography, web exploitation, and binary exploitation.
- Developed a **RAM injection tool** for Linux, exploring low-level memory manipulation, process injection techniques, and system security vulnerabilities.
- Explored debugging techniques using GDB, memory forensics, and Linux system calls to enhance troubleshooting and system analysis.

Projects

Modern Cloud-Native Kerberos | *Python, Flask, WebSockets, React, Docker, PKINIT, Cryptography*   **Github**

- Designed and Integrated a **passwordless Kerberos authentication system** using PKINIT and X.509 certificates, eliminating password-based attacks and reducing credential compromise risk by **100%**.
- Engineered a **high-availability Primary–Replica KDC** architecture with automated database replication and failover, supporting continuous authentication with **zero downtime**.
- Modernized Kerberos into a **cloud-native microservice architecture** using Docker, REST APIs, and a React UI, reducing manual provisioning effort by **60%** and enabling secure multi-device onboarding.

Rippl | *Nextjs, PostgreSql, Authjs, Prisma, Cloudinary*   **Github**

- Created a **full-stack social media platform** using **Next.js**, leveraging **server-side rendering** to achieve a **50% faster initial page load** for dynamic content like user feeds and posts, significantly improving **user engagement and SEO**.
- Architected a **scalable backend** with **Prisma and PostgreSQL**, designing a **complex relational schema** to efficiently model users, posts, comments, likes, and follower relationships, accelerating **API response times by 35%**.
- Implemented a **secure authentication system** using **Auth.js** for robust user and session management, ensuring **data integrity** and optimizing **interactive features** within a **modern Next.js architecture**.

RAM Injection Project | *C, ptrace, GDB, Linux*   **Github**

- Developed a RAM injection tool on Linux, allowing manipulation of running processes.
- Explored low-level memory manipulation techniques using C and Linux system calls
- Gained expertise in process injection, memory forensics, and debugging.

Technical Skills

Languages: C/C++, Java, GO, JavaScript, TypeScript, Python, HTML/CSS, SQL, BashScript
Technologies: Node.js, EJS, Next, React, Redux, Hono.js, Prisma, REST, FastAPI, Turborepo, Pub/Sub
Databases: MongoDB, MySQL, PostgreSQL, SQLite, Redis
Cloud & DevOps: AWS, GCP, Docker, Cloudflare Worker, NGINX, CI/CD
Developer Tools: Git, Vim/Neovim, GDB, Wireshark, Postman, Linux System Calls