

# Pranay Panakanti

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## SUMMARY

Backend Software Engineer focused on Java and Spring Boot, with two live production backends serving 2,500+ users. Built ProStriver, a dual-cloud platform with an asynchronous Kafka and LLM pipeline (Gemini via Spring AI), JWT security, and full CI/CD. Solved 500+ LeetCode problems at a 1664 contest rating and ranked #1 overall in a 5-round DSA series at Meta Developer Communities, GITAM.

## PROJECTS

**ProStriver** Jan 2026  
*Java 21, Spring Boot, Apache Kafka, Redis, PostgreSQL, Docker, AWS EC2, GitHub Actions* [Live](#) | [GitHub](#)

- Designed and deployed a production study-productivity backend for 220+ users on a dual-cloud setup, where a single Docker image runs as an AWS EC2 API node and a DigitalOcean worker via Spring profiles, at \$0/month on free-tier infrastructure.
- Offloaded slow 40–50 s Gemini generation to an asynchronous Apache Kafka pipeline, cutting the client API response to a 253 ms job acknowledgment while generation completes in the background, with partitioned topics, consumer groups, keyed per-user ordering, idempotency, and dead-letter handling.
- Hardened the backend with stateless JWT authentication, rotating refresh tokens, and role-based access control, plus Bucket4j rate limiting, Gemini key rotation, and Redis caching that cut endpoint latency from 342 ms to 90 ms at a 92.5% cache hit ratio.
- Automated delivery with a GitHub Actions pipeline that builds, pushes to Docker Hub, and deploys over SSH for zero-downtime releases, plus five scheduled jobs for Brevo email digests, snapshots, and streak evaluation.

**GITAM Aero Astro Club Platform** Jul 2025  
*Spring Boot, Spring Security, JWT, PostgreSQL* [Live](#) | [GitHub](#)

- Architected and deployed the complete backend for the official club platform serving 2,500+ students, building 40+ secure REST APIs with JWT authentication, RBAC, and a real-time admin dashboard.
- Streamlined end-to-end recruitment workflows and email notifications, cutting manual admin effort by around 70% while maintaining 98% uptime.

**AI-Powered Crop Yield Prediction** Sep 2025  
*Spring Boot, FastAPI, Random Forest, MySQL* [GitHub](#) | [Demo](#)

- Led a 6-member Smart India Hackathon 2025 team to build a crop-intelligence backend, integrating a FastAPI machine-learning microservice over RestTemplate for real-time yield predictions across 50+ crop types at 89% accuracy with sub-second responses.

## WORK EXPERIENCE

**Landmine Soft** (MSME-Recognized Startup), Remote Apr 2026 – May 2026  
*Software Engineer Intern* [Certificate](#)

- Developed 20+ production-grade REST APIs in Java and Spring Boot within a cross-functional team, contributing to core backend modules focused on performance, reliability, and clean API design.
- Implemented end-to-end authentication and authorization using Spring Security and JWT with access and refresh token flows, plus role-based access control with 3 roles across all endpoints.
- Raised unit-test coverage to 87% with JUnit and documented every API with Swagger and OpenAPI, reducing integration errors and accelerating cross-team delivery.

## SKILLS

**Languages:** Java, Python, JavaScript, SQL

**Backend & Frameworks:** Spring Boot, Spring Security (JWT, OAuth 2.0, RBAC), Spring Data JPA / Hibernate, Spring AI, REST API design, JUnit

**Distributed Systems & Messaging:** Apache Kafka, Redis (caching, rate limiting), async processing, microservices

**Cloud & DevOps:** Amazon Web Services / AWS (EC2, S3, Lambda, IAM), DigitalOcean, Docker, GitHub Actions (CI/CD), Linux, Git

**Databases:** PostgreSQL, MySQL, MongoDB

**Core CS:** Data Structures & Algorithms, OOP, System Design fundamentals, LLM integration

## EDUCATION

**B.Tech in Computer Science and Engineering** Jul 2023 – May 2027  
GITAM University, Visakhapatnam [CGPA: 8.98/10](#)

- Vice President, AWS Cloud Club GITAM (Nov 2025 – Present). Lead a 60+ member cloud-computing community, growing active participation by 20% through AWS Jam sessions and peer-led project builds.