

# NIKHIL KUNDALLI HARISH

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## EDUCATION

**Master of Science in Computer Science** | Northeastern University | Boston, MA **January 2025 – December 2026**  
CGPA: 3.89/4

- Relevant Coursework: Programming Design Paradigm, Database Management System, Algorithms

- **Graduate Teaching Assistant - CS5200 (Database Management System)**, Northeastern University (2025–Present)

**Bachelor of Engineering in Information Science** | NMIT University | India **July 2016 – August 2020**  
CGPA: 8.76/10

- Relevant Coursework: Data Structures, Algorithms, DBMS, Operating Systems, Java, Python, Computer Networks

## SKILLS

**Languages & Databases:** Java, Python, JavaScript, TypeScript, MySQL, PostgreSQL, MongoDB, Redis, C++, C

**Backend & Frameworks:** Spring Boot, Node.js, Express, REST APIs, Microservices, RabbitMQ, Flask, Django

**Cloud & DevOps:** AWS (EC2, S3, RDS, Lambda, API Gateway, IAM, EKS, VPC, Route 53, CloudWatch, Secrets Manager), Docker, Kubernetes, Terraform, Jenkins, GitHub Actions, GitLab CI/CD, Ansible, CloudFormation

**Testing & Monitoring:** JUnit, Mockito, Jest, Pytest, SonarQube, Veracode, Kibana, Prometheus, Grafana

**Certifications:** AWS Solutions Architect – Professional (SAP-C02), AWS Solutions Architect – Associate (SAA-C03), Microsoft Azure Fundamentals (AZ-900), Azure Data Fundamentals (DP-900)

## PROFESSIONAL EXPERIENCE

**Alcon (Research & Development)** | *Software Engineer 2* | Bengaluru, India **September 2023 – December 2024**

- Built 10+ microservices in **Java Spring Boot** with **RabbitMQ** and **Amazon RDS**, designed clear REST APIs with **JWT authentication**, caching, and thorough unit tests (JUnit, Pytest) to keep healthcare APIs fast, secure, and reliable.
- Engineered **Python services and automation scripts** to perform intelligent data validation, parse large-scale log files, and streamline release workflows, reducing issue resolution time by **25%**.
- Automated **CI/CD pipelines** using **Jenkins** and **GitHub Actions**, integrated **Terraform** for infrastructure as code, and standardized deployment workflows across environments.
- Containerized applications with **Docker**, orchestrated workloads on **Kubernetes (EKS)**, and optimized infrastructure on **AWS**, improving reliability to **99.9% uptime** and accelerating release cycles by **20%**.

**Accenture** | *Software Engineer* | Bengaluru, India **November 2020 – August 2023**

- Developed enterprise-grade **REST APIs** and middleware services using **Node.js**, and **Express**, integrating with **MySQL** databases and reducing transaction latency by 20%.
- Built and maintained internal web tools with **JavaScript** and **TypeScript** frameworks like **React** and **Angular**, enabling business users to manage workflows, visualize data, and improve productivity.
- Designed and optimized backend workflows by integrating message queues (**Kafka/RabbitMQ**) and **Redis** caching mechanisms, enabling scalable event-driven systems that handled ~1M+ transactions daily and reduced system downtime by 30%.
- Implemented centralized logging and monitoring with **ELK Stack** and **Prometheus/Grafana**, while integrating security scanning tools such as **Sonarqube** and **Veracode** into **CI/CD pipelines**, improving observability and reducing production vulnerabilities.

**GoFlamingo Logistics** | *Software Engineering Intern* | Bengaluru, India **Apr 2019 – August 2019**

- Built and deployed **Django REST APIs** to automate logistics admin workflows, handling **500+ daily requests** with strict validation and reducing manual effort by **40%**.
- Containerized applications with **Docker** and deployed on **AWS Elastic Beanstalk**, improving deployment consistency.

## PROJECTS

**Cloud-Native AI RAG Document Processor** | AWS Lambda, API Gateway, AWS Bedrock, LLM, RAG

- Architected a production-grade serverless application on **AWS** using **Lambda**, **API Gateway**, and **Route 53**, integrating **LLaMA 3 RAG** via **Bedrock** for NLP-based Q&A across 1,000+ structured and unstructured knowledge sources.
- Built a scalable, multi-tenant platform with **RESTful APIs** and microservices, integrated with enterprise systems (**SAP**, **CommEx**, **ServiceNow**) to enable pack visibility and multilingual chatbot interactions across 20+ countries.
- Delivered measurable business impact by saving 500+ hours per week in manual effort for 1,000+ global sales reps and increasing quote-to-contract conversion rates by **50%**.

**Smart Scheduler Application** | Java, Swing, MVC, Design Patterns, CI/CD

- Designed and implemented a modular multi-calendar system in **Java**, applying **MVC**, **Factory Method**, and **Command** design patterns to support 5 flexible scheduling workflows.
- Developed around 10 advanced features including timezone-aware scheduling, recurring events, cross-calendar duplication, and **Google Calendar**-compatible CSV import/export for improved usability and interoperability.
- Built a robust **CI/CD** pipeline with **Jenkins**, integrating **SonarQube** quality gates and **Veracode** SAST/DAST/SCA scans, automating analysis for around 3,000 lines of Java code and reducing manual testing by 40%.

## PUBLICATIONS

**Crop & Fertilizer Recommendation System** | SVM, KNN, Flask, MySQL ([View Publication](#))

- Processed **1,550 soil samples** using Scikit-learn, extracted key nutrient features, and built classification models that achieved **78% accuracy** in predicting soil fertility levels with a custom SVM model.
- Applied probability and statistical modeling techniques for hyperparameter tuning and evaluation using cross-validation, precision-recall metrics, and confusion matrices to improve the robustness of predictions.
- Deployed the trained model through a **Flask-based web application**, allowing real-time soil input and fertilizer recommendation for end users.
- Designed and implemented an optimized **MySQL schema** with over **100 stored procedures** and **20 triggers**, automating soil classification, reducing backend validation overhead by **40%**, and ensuring real-time data integrity.