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Top Skills

Retrieval-Augmented Generation (RAG)

LangChain

Spring Framework

Certifications

Advance C

Machine learning

Machine learning A-Z™ : Hands-on python & R in Data Science

C

Git Essentials

Honors-Awards

Appreciation by Manager

Publications

GeeksForGeeks Article - N modulo 4 using bitwise AND operator

GeeksForGeeks Article - Nth Number With exactly two bits set

Basith Abdul

SDE Intern - Amazon | Ex SDE-II @ NCRVoyix | MSCS @ GSU | MLSA | 5 Hackerrank | SCI'20 Project Admin | Mentor BWLU
Atlanta, Georgia, United States

Summary

I'm a Software Engineer with 3.5+ years of professional experience having a strong foundation in full-stack development, DevOps, distributed systems, cloud infrastructure, and generative AI. I'm passionate about building scalable, high-impact software that solves real-world problems.

Over the past few years, I've worked in multiple areas, from designing microservices and LLM-integrated systems at Amazon, to leading next-gen self-checkout solutions at NCR Voyix that handle massive payment flows in production. I enjoy working end-to-end: designing system architecture, writing clean, maintainable code, automating deployments, and fine-tuning performance until things run flawlessly.

My toolkit spans Java, Python, TypeScript, React, NestJS, Spring Boot, Go, and Django, and I'm deeply experienced with AWS, GCP, Docker, Kubernetes, Helm, and CI/CD pipelines. I also explore the evolving intersection of AI and engineering, building LLM-powered agents, RAG pipelines, and Model Context Protocol (MCP) systems that make intelligent automation a reality.

Recently, I developed a CrewAI-powered multi-agent engineering orchestration system, where autonomous AI agents collaboratively handle the entire SDLC, from code generation and testing to validation. The project showcases my drive to merge software engineering principles with cutting-edge AI frameworks to push the boundaries of what's possible in automation and intelligent systems.

Whether it's designing scalable cloud architectures, optimizing system performance, or engineering AI-driven solutions, I thrive on solving complex problems and bringing innovative ideas to life. If you're looking for someone who blends deep technical expertise with a passion for innovation, I'd love to connect and discuss more.

Experience

Amazon

Software Engineer Intern

May 2025 - August 2025 (4 months)

Nashville, Tennessee, United States

- Designed and implemented an LLM-agnostic MCP server using Spring Boot, integrating CloudAuth for secure, stateless API access. Achieved a 57\% reduction in LLM response latency through strategic model selection, prompt optimization, and efficient data preprocessing, enabling real-time, accurate responses.
- Developed an MCP Client plugin for integration with a chatbot, enabling communication with AWS Bedrock-powered LLMs. Implemented advanced guardrails—including input sanitization and carrier validation—along with conversation history management and real-time streaming response handling for secure, context-aware interactions.
- Architected scalable cloud infrastructure using AWS ECS Fargate, IAM roles, and Route53 for DNS management. Integrated an Application Load Balancer and API Gateway for high-availability, fault-tolerant traffic routing, supporting resilient service-to-service communication and zero-downtime deployments.

Georgia State University

Graduate Teaching Assistant

August 2024 - May 2025 (10 months)

Atlanta, Georgia, United States

- Conducted lab sessions on complete software development lifecycle (Agile principles), with a focus on Java including Adapter, Factory, and Decorator design patterns.
- Instructed students on best coding practices through SOLID principles, and guided them in OOPS concepts, system documentation using Javadoc and testing with JUnit.

NCR Voyix

3 years 6 months

Software Engineer II

April 2023 - August 2024 (1 year 5 months)

Hyderabad, Telangana, India

- Led the development of multiple microservices for the Next-Gen Self-Checkout system, employing Adapter, Decorator, Factory, and Observer

Design Patterns, and leveraging React, Redux, NestJS, Redis, MongoDB, SQL, RxJS, GoLang, Docker, Kubernetes, Helm Charts, Github Workflows, Jenkins, Groovy, Bash and GCP.

- Played a pivotal role in all phases of software development, including coding, code reviews, resolving bugs, project planning, management, testing, and deployment.

- Assisted with GitHub workflows and bash scripting for the automated execution of end-to-end (E2E) tests, deploying entire cluster on Google Kubernetes Engine (GKE) upon each pull request merge. Wrote multiple test cases in Cypress, Gherkin, CucumberJS.

- Designed and implemented an end-to-end monitoring and self-healing system for our server using Google Cloud Functions, Pub/Sub, Google Cloud Uptime Checks, Scheduler, and Alerts.

- Designed an end-to-end approach for processing and printing of logs within multiple log files leveraging a Fluentbit sidecar container and a lua script for filtering.

Software Engineer

August 2021 - June 2024 (2 years 11 months)

Hyderabad, Telangana, India

- Led the development of a comprehensive emulator from scratch, simulating a pinpad device for EFT payments and facilitating the automated execution of end-to-end tests on CI/CD pipelines across diverse scenarios.

- Devised Dockerfiles for multiple microservices, integrating them into our kubernetes cluster defining the corresponding manifests within our helm umbrella chart.

- Architected robust CI/CD pipelines that automate the building and deployment of Docker images, RPM packages, and Debian packages, on Google Artifactory Registry and JFrog Artifactory.

- Implemented and managed a Jenkins job responsible for secure SSH access to our self-serve checkout lanes, facilitating the upgrading of microservices running as daemon processes.

- Guided and mentored team members, ultimately enhancing team performance and project outcomes.

- Engineered GitHub workflows that periodically facilitate the upgrade to the latest Kubernetes cluster chart.

- Optimized cloud infrastructure costs by reducing the disk usage based on capacity reports.

Software Engineer Intern

March 2021 - August 2021 (6 months)

Hyderabad, Telangana, India

- Independently engineered a JIRA Notifier utilizing GoLang, JIRA REST APIs, and JQL Queries, streamlining the management of over 450 production JIRAs related to customer issues.

- Assisted with a Python script to dynamically insert and update copyright headers within every file in the codebase.

- Scripted a batch process, scheduled via Windows Task Scheduler, for the routine cleanup of superfluous log data.

Microsoft Learn Student Ambassadors CEE

Microsoft Learn Student Ambassador

August 2020 - November 2021 (1 year 4 months)

LetsUpgrade

Mentor

July 2020 - August 2020 (2 months)

- Effectively mentored and coached a team of 10 members, adhering to agile methodologies and guiding the development of a specialized search engine tailored for programmers.

- This comprehensive search tool utilizes web scraping techniques on websites such as StackOverflow, Wikipedia, and Quora to deliver the most relevant search results, catering to the specific needs of the developer community.

StudentCode-in

Project Admin

June 2020 - August 2020 (3 months)

Mentored the team in acquiring proficiency in a wide array of technologies, including Python Django, MySQL, Stripe API, and Google Drive API, empowering them to collaboratively contribute to the open-source project.

Research Center Imaarat(RCI)

Software Engineering Intern

December 2019 - January 2020 (2 months)

Hyderabad

Engineered a software that enabled dynamic geospatial visualization of missile trajectories on Google Maps using C++ and the QT software framework.

Education

Georgia State University

Master's degree, Computer Science · (August 2024 - December 2025)

MVSR Engineering College

Bachelor of Engineering, Computer Science · (2017 - 2021)