

# Ankit Suresh Raut

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## PROFESSIONAL SUMMARY

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Software Engineer with 3+ years of experience designing scalable AI, backend, and cloud-native systems. Proven record of delivering a 42% boost in reliability, sustaining 98% uptime, and achieving 70% faster deployments through CI/CD and serverless automation. Skilled in Java, Golang, Python, React, and AWS/Kubernetes, with expertise in distributed systems, DevOps practices, and performance optimization. Passionate about building fault-tolerant systems and driving measurable business impact.

## PROFESSIONAL EXPERIENCE

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### YesTech Corp.

*Full-Stack Engineer and Cloud Infrastructure Lead*

*Remote · Feb 2025 - Present*

- Led backend services in Golang and Python, supporting 500+ AI image-generation workflows/month with scalable API design, observability, and typed SDKs.
- Architected and optimized AWS infrastructure (Athena, DynamoDB, S3, Lambda, Bedrock, CloudWatch, RDS), improving reliability by 42% and reducing spend by \$900/month.
- Integrated LLMs, RAG, PyTorch, and OpenCV into AI pipelines, boosting image quality by 15% and increasing throughput by 20%.
- Built developer tooling in SwiftUI for log visualization, diagnostics, and test prompts; cut triage time per bug by 25-30%.
- Implemented blue/green deployments and automated rollbacks, reducing change-failure rate by 45%.
- Mentored a distributed team of 7 engineers, improving feature delivery with CI/CD and observability practices.

### LTIMindtree Limited

*Software Engineer P1*

*Pune, India · Jun 2022 - Jan 2024*

- Developed and supported Java-based REST APIs handling 2M+ monthly requests with 98% uptime, implementing rate limiting and load balancing for stable performance.
- Integrated event-driven workflows using Kafka and AWS SNS/SQS, improving system throughput by ~35% and supporting reliable message processing.
- Built modular backend components supporting 30k+ daily transactions, adding API versioning and basic integration testing.
- Assisted in integrating Oracle Digital Assistant with AWS Lambda for conversational features, reducing response time by ~2 seconds and supporting 1,000 concurrent sessions.
- Contributed to CI/CD pipelines using Docker, Jenkins, and Terraform, helping reduce deployment issues by 40%.
- Worked with Agile teams to review code and apply clean coding and documentation standards, which improved maintainability and reduced bugs found during testing by 30%.

*Java Full-Stack Developer Intern*

*Pune, India · Feb 2022 - May 2022*

- Developed full-stack features with Spring Boot, Angular, and PostgreSQL, contributing to 5 successful production releases.
- Designed optimized PostgreSQL schemas with Flyway migrations, improving p95 query latency by 120ms.
- Built hospital reception workflows processing 450+ daily appointments, reducing check-in time by 20%.
- Implemented CRUD services with in-memory caching, enabling 2,000+ concurrent users and lowering data-entry errors by 15%.

## PROJECTS

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### Payments & Growth Platform

- Developed a Java Spring Boot backend with Angular frontend, processing 100k+ transactions/day at 99.9% availability, backed by PostgreSQL, with REST APIs, retry handling, and logging that improved latency by ~30 ms.

### NLP Powered SQL Query Generation System

- Built a React-based web dashboard integrated with Spring Boot REST APIs, applying NLP techniques for natural-language query parsing and intent extraction to generate SQL queries, achieving 92% accuracy and <2s response time for 150+ concurrent users.

### Voice to Insights Pipeline for Air Traffic Operations

- Transcribed controller audio to text with 95% accuracy; surfaced timelines/insights that cut manual review by 15 min/shift. Added scripts and metrics to evaluate models and pipeline health.

### 3D Gaussian Splat Segmentation (Meta's EgoLifter)

- Extended a PyTorch pipeline with SAM/SAM2 and contrastive learning; explored native 3DGS attributes with MLPs; achieved 25 dB PSNR in cloud GPU experiments.

### DNS Cache Poisoning & DNSSEC Defense Lab

- Built a Docker-based DNS security lab demonstrating cache poisoning attacks and DNSSEC defense, using a React UI and Python backend to visualize secure vs compromised DNS resolution.

## SKILLS

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- **Languages:** Java, Python, Golang, C#, JavaScript, SQL
- **Frameworks:** Spring Boot, FastAPI, React, Angular, Material-UI, SwiftUI
- **Databases:** PostgreSQL, MySQL, DynamoDB, RDS, MongoDB, SQL Server, Oracle DB
- **Developer Tools:** Git, Docker, Kubernetes, Terraform, Jenkins, GitHub Actions, VS Code, Py-Charm
- **Cloud Platforms:** AWS (EC2, S3, Lambda, API Gateway, RDS, DynamoDB, CloudWatch, Athena, Bedrock), GCP, Azure
- **DevOps / Practices:** CI/CD, Serverless, Agile Scrum, Object-Oriented Design, System Architecture, Observability, Troubleshooting
- **Testing:** JUnit, Cypress, PyTest, Postman, Testcontainers, XCTest
- **Machine Learning / AI:** PyTorch, scikit-learn, OpenCV, LLMs, RAG, Pandas, NumPy, Matplotlib

## EDUCATION

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### George Mason University

Jan 2024 - Dec 2025

*Master of Science, Computer Science (AI/ML Concentration)*

- **GPA:** 3.8/4.0

### Pune University

Jun 2018 - Apr 2022

*Bachelor of Engineering, Computer Engineering*

- **GPA:** 9.30 / 10

## CERTIFICATIONS

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- **Oracle Cloud Infrastructure 2023 AI Certified Foundations Associate:**Dec 2023
- **Oracle Cloud Infrastructure 2023 AI Certified Data Science Professional:**Dec 2023
- **Oracle Cloud Infrastructure 2023 Digital Assistant Professional:**Aug 2023
- **Java Programming Masterclass covering Java 11 and Java 17:**Udemy (Aug 2021)
- **AWS Certified Developer – Associate:**in progress

## PUBLICATION

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- Automated Traffic Sign Detection Using CNN.*International Research Journal of Modernization in Engineering Technology and Science, Vol. 4, Issue 4, April 2022*