# Nandan S

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# **EDUCATION**

# St. Joseph's College of Engineering

Nov 2022 - May 2026

B. Tech in Information Technology

o CGPA: 7.63/10.0

## **EXPERIENCE**

#### DevOps Engineer Intern

Chennai, Tamilnadu

Indie Spirit Technologies

Oct 2024 - Jan 2025

- Configured and managed AWS EC2 instances for hosting web applications, setting up testing environments, and deploying containerized applications using Docker and reduced deployment time by 40 percentage with Docker.
- Implemented Prometheus for system monitoring and Grafana for real-time visualization, optimizing infrastructure performance and troubleshooting efficiency.

#### **PROJECTS**

## AWS DevOps Web Server Setup Automation

github 🗹

- Automated Apache/NGINX setup on EC2 instances using Terraform and shell scripts, configured secure firewall rules
  for HTTP/HTTPS, optimized server performance, and ensured cross-instance connectivity. Verified deployment with a
  "Hello World" page showcasing OS details. Implemented an AWS Application Load Balancer (ALB) to distribute traffic
  across multiple EC2 instances, improving scalability and availability while ensuring seamless load distribution.
- o Tools used: AWS EC2, Terraform, Load Balancer, Bash (Shell Scripting), Apache/NGINX, ALB, Security Groups, SSH.

#### Nova Personalized Assistant

github 🗹

- Designed and developed an AI-based desktop voice assistant, Nova, capable of performing natural voice interactions and executing system-level tasks. Spotify API for music playback, and pywhatkit for YouTube integration. Enabled realtime command execution for opening/closing software, telling time, searching Wikipedia, telling jokes, and motivational prompts. Secured credentials using dotenv and followed best practices for secret management.
- Tools used: Python, SpeechRecognition, pyttsx3, pywhatkit, Spotipy (Spotify API), Wikipedia, pyjokes, subprocess, doteny

## Zomato Clone Deployment using DevOps

github 🗹

- Designed and deployed a CI/CD pipeline for a Zomato Clone App using Jenkins, SonarQube, and Trivy for build automation, code quality, and security. Containerized microservices with Docker, deployed on Kubernetes, and enabled GitOps with ArgoCD. Implemented monitoring with Prometheus and Grafana.
- o **Tools used:**GitHub, Jenkins, SonarQube, OWASP Dependency-Check, Trivy, Docker, ArgoCD, Kubernetes, Prometheus, Grafana

#### **Smart Attendance System**

github 🗹

Worked on a barcode-based attendance system using Python, Pyzbar, and OpenCV for barcode scanning, and PyMongo
for database operations. Integrated MongoDB Atlas for real-time data storage and retrieval. Built an admin dashboard
using Node.js, Express, and EJS for efficient attendance tracking and student-specific status views. Employed Flask for
backend services and ensured robust performance with automated updates and streamlined error handling.

#### TECHNOLOGIES

Languages: Java, Python, Javascript

Frameworks and Tools: Linux, Docker, Kubernetes, Terraform, Prometheus, Grafana, Git, GitHub, HTML, CSS

Cloud Platforms: AWS, Azure Databases: MySQL, MongoDB

#### **CERTIFICATIONS**

 $\circ~\mathbf{Coursera}:$  AWS Cloud Practitioner Essentials

• Microsoft Certified : Azure Fundamentals

o MongoDB University: Introduction to MongoDB for Students

#### ACHIEVEMENTS AND RESPONSIBILITY

Notable Participant - IIT BOMBAY FOSEE MAPATHON

Nephele-2.0 - Contributed to the robot project Nephele 2.0, developing the ATS score checker feature

Finalist - Innothon'24 St. Joseph's Group of Institutions

Finalist - Hack-a-Cloud 2.0 AWS Cloud Club St. Joseph's Group of Institutions

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