

Somen Samanta

Software Engineer | Cloud & Security Enthusiast | AI, DevOps & Automation | Researcher

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Professional Summary

Passionate Software Engineer with expertise in Cloud Infrastructure, DevOps, AI, and Security Research. Skilled in developing scalable applications, automating workflows, and managing cloud deployments using Python, C++, and JavaScript. Experienced in Docker, Kubernetes, and CI/CD pipelines, ensuring system efficiency and reliability.

Professional Experience

Farmicon India Pvt. Ltd. | Internship (Dec 2023 – Apr 2024) | Roorkee, Uttarakhand

- **AWS Administrator** (Dec 2023- Apr 2024)
 - Optimized cloud infrastructure, reducing deployment time by **40%** through automated provisioning and monitoring.
 - Deployed and optimized 4+ machine learning models on AWS, enhancing automation and performance.
- **UI Designer** (Jan 2024 - Apr 2024)
Developed interactive UI mockups, improving user engagement by **30%** and enhancing workflow efficiency.

IndoplanetX Space Vault And Research Pvt. Ltd. | Internship (Jul 2022 – Sep 2023) | Roorkee, Uttarakhand

- **Website Developer** (Dec 2022 - Sep 2023)
 - Designed and deployed a high-performance website, improving load speeds by **50%**, leading to a **25% increase in user retention**.
 - Deployed and managed applications on AWS (EC2, S3), leveraging cloud scalability and ensuring 99.9% uptime.
 - Implemented CI/CD pipelines for automated deployments, streamlining development and release processes.
- **Research Intern** (Sep 2022 - March 2023)
 - Conducted research on satellite communication security, identifying vulnerabilities and enhancing encryption techniques by **20%**, improving data integrity.
- **Internship Trainee** (Jul 2022 - Aug 2022)
 - Assisted in automation projects, reducing manual intervention by **35%**, increasing efficiency in testing and development cycles.
 - Developed the code for the Cube Satellite module built on Arduino.

Technical Skills

Programming: Python, C/C++, Shell Scripting, BASH

Cloud & DevOps: AWS (EC2, S3, IAM, Lambda), Docker, Kubernetes, Terraform, CI/CD (Jenkins, GitHub Actions)

Databases & APIs: MySQL, PostgreSQL, RESTful APIs, NoSQL

Tools & Frameworks: Django, ReactJS, NextJS, Django Rest Framework

Operating Systems: Linux (Ubuntu, CentOS, Arch), Git, Bash Scripting, VS Code, Jupyter Notebook

Web Development: HTML, CSS, React.js

Projects

Sentiment Analysis using Random Forest | [\[LINK\]](#)

- Developed a machine learning model to analyze sentiment from unstructured text data.
- Implemented data preprocessing techniques, improving text classification efficiency.
- Achieved 72.83% accuracy using the Random Forest Classifier, enhancing sentiment prediction reliability.

Weather Cube Satellite Code | [\[LINK\]](#)

- Designed DHT Sensor header and communication files for real-time wireless data transmission in a Cube Satellite.
- Ensured 95% reliability in processing sensor data from 5+ onboard sensors, improving satellite telemetry accuracy.

Custom DNS Resolver | [\[LINK\]](#)

- Developed a high-performance DNS resolver, optimizing query response time and network efficiency.
- Implemented security features like domain filtering and DNS over HTTPS (DoH) for enhanced privacy and protection.

Educational Details

Bachelor of Technology (B.Tech) in Computer Science Engineering

Roorkee College of Engineering, Uttarakhand Technical University (2021 – 2025)

Current CGPA: 8.2

Relevant Courses: Object-Oriented Programming, Data Structures, Algorithms, Database Management, Software Engineering

Certificates:

Technical Support for AWS Workloads(AWS, Coursera), AWS Cloud Technical Essentials(AWS, Coursera), OOPs (UC SanDiago, Coursera)