

# Sahana L

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## PROFESSIONAL SUMMARY

Cloud Engineer and Machine Learning specialist with expertise in Amazon Web Services (AWS) including EC2, S3, Lambda, ECS, and VPC architecture. Skilled in developing and deploying AI/ML models using Natural Language Processing (NLP), Convolutional Neural Networks (CNNs), TensorFlow, and PyTorch. Experienced in containerization with Docker, CI/CD pipeline implementation, and Infrastructure as Code using AWS CloudFormation. Published researcher in AI-driven healthcare solutions with proven ability to architect scalable, secure cloud infrastructures that solve real-world problems.

## SKILLS

**Cloud:** AWS (EC2, S3, ECS, Lambda, IAM, VPC, Auto Scaling, ALB, CloudFormation, Bedrock)

**Languages:** Python, JavaScript (Node.js), C, C++, Java, SQL, Bash

**AI/ML:** Scikit-learn, TensorFlow, PyTorch, NLP, Explainable AI, CNNs, Pandas

**DevOps:** Docker, GitHub Actions, CI/CD, Linux (Ubuntu)

**Other:** Networking, Security, HTML/CSS, REST APIs

## EDUCATION

**HKBK College of Engineering, Bangalore**  
B.E. – Computer Science and Engineering

**CGPA: 8.7**

## CERTIFICATIONS

- AWS APAC Solutions Architecture Job Simulation – Forage
- NPTEL Cloud Computing
- Cloud Computing Architecture – Great Learning
- Introduction to Artificial Intelligence – Great Learning

## PROJECTS

**Alzheimer's Chatbot for Screening & Recommendation** | Python, Flask, NLP, SQLite, Explainable AI, HTML/CSS [GitHub]

- Developed a cloud-ready chatbot using Flask and NLP for Alzheimer's screening and medical Q&A.
- Designed role-based authentication, secure appointment management.
- Applied Explainable AI, integrated SQLite database for data handling.

**Online Course Completion Prediction API** | Python, FastAPI, Docker, Scikit-learn, Pandas, AWS ECS (Fargate), ECR, VPC [GitHub]

- Engineered scalable ML API with Random Forest/Logistic Regression/GBM for student outcome prediction.
- Containerized app with Docker, production deployment on AWS ECS Fargate and VPC.
- Developed robust ML pipeline with cloud orchestration and CI/CD integration.

**Campusflow: College Management System** | Node.js, Express, Flask, JavaScript, HTML/CSS, Socket.IO, Bash, Linux [GitHub]

- Engineered full-stack portal for students, faculty, and admin – assignment uploads, and backup/restore.
- Used Node.js and Flask microservices, real-time notifications with Socket.IO.
- Designed role-based dashboards and secure login.

**CloudGenie – AI Cloud Advisor** | AWS Bedrock, AWS PartyRock, AI/ML [GitHub]

- Developed a generative AI advisor for AWS deployments using Bedrock & PartyRock.
- Automated service recommendations and troubleshooting for cloud architects.

**Portfolio Websites (AWS/CloudFront & S3)** | AWS EC2, S3, CloudFront, ALB, VPC, HTML/CSS [GitHub], [S3/CloudFront]

- Launched personal portfolio sites on AWS using S3, CloudFront, EC2, VPC, and Auto Scaling.
- Achieved high availability and automated disaster recovery with ALB failover design.

## PUBLICATIONS

- **A Hybrid Chatbot System for Alzheimer's Disease Screening and Treatment Recommendation Using Clinical NLP and Explainable AI.**

Accepted at ICAAIC 2025 — an international, IEEE-affiliated conference on AI applications.