

# Akhil

Bangalore, Karnataka, India

+91-8710806117 | akhilshettykjr@gmail.com | LinkedIn | GitHub

## Professional Summary

---

Cloud Engineer with nearly 2+ years engineering production-grade AWS infrastructure and Python automation pipelines. Proven track record building zero-to-one applications serving enterprise customers, architecting CI/CD systems, and implementing IaC solutions across multi-region deployments. Passionate about leveraging GenAI and ML to solve next-generation cloud infrastructure challenges.

## Technical Skills

---

**Cloud & Infrastructure:** AWS (EC2, S3, Lambda, ECS, Batch, Step Functions, SQS, SNS, EventBridge, VPC, IAM, CloudWatch), Terraform, Docker, Multi-region Deployment, Infrastructure as Code, Microservices Architecture

**Programming & Databases:** Python (Boto3, Pandas, NumPy, Celery), SQL, MySQL, MongoDB, NoSQL, Redis, Database Optimization, Query Performance Tuning, Indexing Strategies

**DevOps & Automation:** AWS CodePipeline, CodeBuild, CodeCommit, Git, GitHub, Blue-Green Deployment, Automated Testing, Container Orchestration, Message Queuing Systems, Configuration Management, Cron Jobs

Tools & Frameworks: RESTful APIs, CARLA Simulator, CarMaker, CSV Parsing, Data Pipeline Architecture, Event-Driven Systems, Agile/Scrum Methodologies

## Experience

---

**KPIT Technologies (Global Automotive Tech Leader) - Bangalore, India**

Software Engineer - Cloud Infrastructure & DevOps | Jan 2024 - Present

- Architected production cloud application from scratch serving multiple users across different AWS regions using Terraform Infrastructure as Code
- Designed end-to-end workflow integrating Python, Celery, Redis, Docker, and AWS services (SQS, EC2, S3) achieving parallelism and reducing operation time 70% through distributed cloud architecture
- Orchestrated event-driven serverless architecture using Lambda, Step Functions, ECS Batch, and SQS processing 10K+ transactions
- Optimized Python logic and database operations handling 50K+ concurrent updates; improved MySQL and MongoDB query performance 5x through strategic indexing and query optimization
- Cut infrastructure costs 45% by optimizing resource allocation and right-sizing compute instances while improving throughput 3x
- Engineered CSV data extraction pipeline with time-based parsing logic processing and automating database ingestion workflows
- Built Python Boto3 automation framework reducing manual infrastructure operations 80% across organization
- Engineered Blue-Green CI/CD pipeline with AWS CodePipeline, CodeBuild, and CodeCommit eliminating 100% production downtime
- Integrated CARLA and CarMaker simulation models for AD/ADAS testing workflows, enabling automated validation of autonomous driving algorithms
- Mentored junior engineers on cloud best practices, Infrastructure as Code, and DevOps methodologies

- Earned Distinguished Contributor Award for implementing mission-critical infrastructure automation framework
- Recognized with 2x High Flyer Awards for sprint excellence and cross-functional collaboration
- Achieved 6 consecutive client ratings of 4.5+/5.0 for consistent delivery excellence and stakeholder communication

**KPIT Technologies** - Pune, India

Software Developer Intern - Cloud Solutions | Jun 2023 - Jan 2024

- Developed event-driven data pipelines integrating Lambda, S3, and SQS to automate manual automotive telemetry workflows
- Leveraged AWS services such as S3, EC2, and Lambda to build scalable and reliable cloud-based solutions
- Utilized the Boto3 library to interact with AWS services programmatically, facilitating tasks like data storage, retrieval, and management
- Created Python automation scripts for AWS resource provisioning reducing infrastructure setup time 60%
- Collaborated with cross-functional teams to understand requirements and deliver cloud solutions meeting business objectives
- Integrated Lambda functions with S3 and SQS queues to facilitate event-driven architectures, enabling efficient data processing workflows

Areas of Interest & Continuous Learning

---

**Emerging Technologies:** Machine Learning, Artificial Intelligence, Generative AI (LLMs, GPT models), Computer Vision, MLOps, AI-driven Automation, Edge Computing, Serverless ML Architectures

**Professional Development:** Actively exploring AI/ML applications in cloud infrastructure, pursuing hands-on projects in neural networks and deep learning frameworks (TensorFlow, PyTorch), staying current with advancements in autonomous systems and intelligent automation

Key Projects

---

**Healthcare AI: Radio Sensitivity & Risk Analysis Platform**

Oct 2023 - May 2024

*Python, Django, OpenCV, Scikit-learn, Computer Vision, Machine Learning*

- Engineered ML-powered web application automating chromosome image analysis for oncology professionals using computer vision algorithms
- Reduced diagnostic time 75% and improved accuracy 40% compared to manual assessment methods by implementing automated telomere length analysis
- Designed patient-friendly reporting system translating complex medical data into actionable insights for personalized cancer radiotherapy decisions
- Minimized radiation therapy side effects through predictive analysis enabling data-driven treatment planning

Education

---

**Mangalore Institute of Technology & Engineering**

*Bachelor of Engineering in Computer Science; CGPA: 9.3/10.0*

Mangalore, India

*Aug 2019 - May 2023*