

MUKESH BARAPATRE

CLOUD | DEVOPS ARCHITECT

AWS Certified Solutions Architect – Associate

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<https://mukeshbarapatre.github.io/mycv/>

Profile Summary

1. Currently working with Pinnacle Teleservices Private Ltd., Nagpur as a DevOps Architect in the Technical Department. Earlier worked as a Senior System administrator and Assistant Manager, with a proven track record of driving transformative design and technology initiatives
2. Overall 11+ years of Cloud | DevOps | On-Prem | Software development Experience
3. Worked on many technological innovations that delivered great business value to Pinnacle and S. B. Jain
4. Strong hold on designing scalable, resilient and performant on-cloud and on-premise applications
5. Worked on Data Analytics solution using open source software components like **Apache Nifi, Apache Drill, Apache Dremio, MinIO and Apache superset** for data visualizations
6. Hands on architecture design experience of high throughput low latency systems using Apache **Kafka** and **Debezium**, Redis
7. Self-starter with the ability to work independently or as part of a team

Academic Qualifications

- **Master of Technology in Computer Science & Engineering**, The Rashtra Sant Tukdoji Maharaj Nagpur University, 2012-2014.
- **Bachelor of Engineering in Computer Science & Engineering**, The Rashtra Sant Tukdoji Maharaj Nagpur University, 2009-2012.
- **Diploma in Computer Technology**, Maharashtra State Board of Technical Education, 2007- 2009.

Technical Skills

- Cloud Platform: AWS (VPC, EC2, ASG, ECS, ECR, SES, SNS, S3, Lambda, Event Bridge, Cert-Manager, App Runner, Gateway, Code Build, Code-Pipeline, System Manager, WAF, Cost Explorer, IAM)
- DevOps Tools: GitHub, Chef, Ansible, CI/CD, Docker, Maven
- Monitoring Tools: Grafana, Zabbix, Data Dog, CloudWatch
- Scripting Languages: Bash, Groovy, Python.
- Operating Systems: Linux, Ubuntu, CentOS, Windows.
- DB: MySQL (standalone, cluster), MongoDB (Cluster, Sharded), PostgreSQL,
- Clusters Setup: MongoDB, Redis, Kafka, MinIO, Dreamio, Drill, RabbitMQ,
- Linux Server Administration
- Extensive knowledge of G-Suite
- Fire-Wall Administration
- Cloud AWS & Digital Ocean, Azure
- NodeJS, TypeScript, JavaScript, Java, JSP, Servlet, Spring Boot.
- Web Development Skill Using WordPress

Work Experience

Pinnacle Teleservices Pvt. Ltd (DevOps Architect – 4 Years approx.)

Nagpur, Maharashtra | 2021 – Present

1. DevOps & Infrastructure Automation

- Leading the DevOps team to build and maintain scalable, secure, and highly available cloud infrastructure across AWS and DigitalOcean.
- Designed and implemented CI/CD pipelines using GitLab CI, Jenkins, and GitHub Actions to automate deployments.
- Automated development and QA environment provisioning during working hours, with off-hour shutdown strategies to reduce costs.
- Enabled end-to-end observability using Grafana and Zabbix for infrastructure and product monitoring.
- Supervised the WhatsApp Tech Operations Team, including API integrations, testing, and database management.
- Delivered a complete data analytics infrastructure using Apache Drill, Dremio, MinIO, and MongoDB for high-speed querying, visualization, and reporting.
- Led cluster deployments and high-availability setups for technologies such as: Kafka Cluster, MySQL (master-slave, InnoDB Cluster), MongoDB (replica sets, sharded clusters), Redis, RabbitMQ, NiFi, MinIO, Dreamio, and Apache Drill
- Managed application deployment environments using Docker and service management, NGINX and Apache web servers, Git repository synchronization and CI integration
- Oversaw IT infrastructure and firewall operations, including server provisioning, security rule management, and lifecycle maintenance.
- Administered server infrastructures across Unix, Linux, and Windows, specializing in system configuration, performance tuning, and uptime optimization.

2. Technical & Solution Architecture

- CPAAS-Existing SMS and WhatsApp platforms at Pinnacle served a great purpose for business for over 17 years. As the business grew, there was a need to uplift these platforms using the latest technologies and architecture to support large concurrency, scalability and reliability.
- Systems for SMS and WhatsApp were designed for high throughput, low latency, highly scalable, resilient event driven microservices. On-prem and Cloud hybrid model is also being worked upon.
- Worked on Bigdata 2.0, build data pipeline for cluster1, cluster2 and cluster3 as hot, warm and cold data reporting. Worked on Data analytics using open source technologies like Apache Nifi, MinIO, Dremio Lakehouse, Apache Drill, Groovy script and used Apache Superset as visualization tool. Build a data pipeline architecture for this ETL need.
- Working on the CDP platform implementation as a service for our client offerings. Worked on WhatsApp voice bot
- Managed cloud architecture for flagship platforms such as:
 - WhatsApp
 - SMS
 - Omnichannel,
 - Email,
 - Live Agent,
 - RCS,
 - Pyramid ERP
 - and internal DevOps systems.
- Actively participated in product design, project discussions, and client meetings to provide architecture guidance.
- Supported high-throughput, large-scale deployments with end-to-end infrastructure ownership.

3. Developer Contributions

- **Designed & Developed:**
 - **DSP (Dynamic Server Provisioning):** An internal API platform (TypeScript, Node.js, MySQL - Sequelize ORM, AWS SDK) enabling dynamic on-demand provisioning. This project is developed to launch the dynamic server whenever the demand increases and destroy. To handle the CPASS industry requirement.
 - **WhatsApp CDC Platform:** Architected for high-throughput, scalable messaging with components like:
 - API Aggregator
 - Callback Listener (Meta Webhook Handler)
 - Integrated into consolev1.pinbot.ai, console.pinbot.ai
- **Led Backend Development** of a Live Chat Application using Node.js, TypeScript, MongoDB (clustered), delivering:
 - RESTful APIs
 - WebSocket-based real-time communication
- Develop a WebRTC Project to support video call facility for the agent communication channel
- Built multiple internal product modules to accelerate delivery and improve operational efficiency.
- Delivered custom scripting and tooling support to DevOps and engineering teams.

4. Cloud Cost Optimization

- Achieved significant AWS cost savings by implementing various cloud cost control strategies:
 - Right-sizing EC2 instances and RDS databases based on utilization metrics.
 - Purchasing and managing Reserved Instances (RI) and Savings Plans for long-term usage.
 - Enforcing lifecycle policies for automatic archival/deletion of unused data (S3, EBS, logs).
 - Developed Lambda scripts and cron-based automation to shut down dev/test infrastructure outside working hours.
- Leveraged AWS Budgets and Cost Explorer to track, forecast, and alert on overspending.
- Migrated non-critical workloads to cost-effective platforms (e.g., from on-demand to spot instances or from AWS to DigitalOcean).
- Conducted monthly cost audits and provided cost breakdown reports to directors and stakeholders for financial planning.
- Collaborated with engineering teams to implement stateless and elastic architectures for better scaling and lower costs.

5. Information Security & Compliance

- Acted as the InfoSec SPOC (Single Point of Contact) for handling client-side security assessments and infrastructure audits.
- Led the creation and implementation of IT security policies, SOPs, and best practices aligned with industry standards.
- Enforced security hardening measures across cloud infrastructure and on-premise systems.
- Implemented disaster recovery plans, cross-region replication, failover configuration, and restoration procedures.
- Conducted DR drills to validate recovery objectives and minimize downtime risks during outages.
- Maintained business continuity strategies to ensure critical infrastructure availability during failures or cyber incidents.

6. Vendor & Stakeholder Management

- Served as the primary liaison with AWS, MongoDB, DigitalOcean, and other cloud service vendors.
- Regularly led technical meetings and strategic discussions with both vendors and clients to align infrastructure with product roadmaps.

7. Operations & System Administration

- Managed relational and NoSQL databases, particularly **MySQL** administration (replication, clustering, tuning).
- Ensured high availability and robust performance across critical systems through efficient monitoring, patching, and incident response.

S. B. Jain Institute of technology, Management and research, Nagpur (RTM Nagpur University) (7.5 Years) Nagpur, Maharashtra 2013-2014 and 2015-2021

5+ Years of Experience as a System Administrator | 7.5 Years of Teaching Experience as an Assistant Professor (UGC)

1. System Administration & IT Infrastructure Management

- Managed all college IT infrastructure, including network operations, server setup, and firewall rule configuration.
- Configured and maintained SonicWall NS2650 firewall for network perimeter security.
- Led a team responsible for managing computer labs, networks, inventory, and server rooms for both college and school divisions.
- Designed and developed the website www.sbjit.edu.in
- Reengineered the fiber networking infrastructure with a multi-tier security architecture.
- Created a client-server architecture on Linux for executing programming practical's using SSH (Java, C, C++, DBMS, PHP, JavaEE).
- Designed and managed the college website (www.sbjit.edu.in) and internal servers.
- Established and maintained Google Workspace (G-Suite) mail server for campus-wide intra-communication.
- Provided internal NPTEL media streaming server; served as SPOC (Single Point of Contact) for NPTEL local chapter.
- Automated server creation routines, applied system upgrades/patches, implemented monitoring, and maintained security protocols.
- Revamped NetBackup schedules, optimized system performance, and maintained 99.95% system uptime.
- Used batch scripting, PowerShell, VBScript, and WMI to automate administrative tasks and improve team productivity.
- Acted as the primary escalation point for advanced systems/network troubleshooting; maintained a 100% issue-resolution score.

2. Technical Training & Faculty Responsibilities

- Delivered technical education in subjects such as Java, C, C++, Web Development, Artificial Intelligence, and Game Development using UNITY.
- Developed and executed curriculum content, practical modules, and hands-on programming labs for undergraduate students.
- Trained cross-functional staff and students on network operations, login procedures, permissions, software usage, and system security.
- Mentored students for final-year projects, research activities, and guided innovation through technology-oriented learning.
- Languages, Artificial Intelligence, Game Development via UNITY, etc.

G H Raisoni College of Engineering and Management Pune (1 Year)

Pune, Nagar, Maharashtra 2014-2015 Teaching Experience as an Asst. Professor (UGC)

- A Year of Teaching Experience as an Asst. Professor (UGC) Handling Technical Subjects for teaching

Certification & Achievements

- AWS Certified Solutions Architect – Associate
- AWS Certified Cloud Practitioner
- 2 Times Technical Performer of the year, 2023-2024, 2024-2025
- 2 Times First Prize at R&D - 2024-2025
- Participated in the State Level technical quiz Competition held on 3rd March 2009 at Mumbai.
- Participated in the District Level science exhibition 2003 / 2004.
- Won Third rank in the Zonal Level science exhibition 2003 / 2004.
- Won First rank in the Zonal Level science exhibition 2009 at Priyadarshini Polytechnic College

Publication Details

- “A Review on Spoofing Attack Detection in Wireless Ad hoc Network” in IJETTCS.
- Spoofing Attack Detection and Localization in Ad hoc network using Received Signal Strength (RSS) in IJARCCE
- Review on Restricted Movement-Assisted Sensor Organization Algorithm for Hole Detection and Healing in the International conference of IJCA in GH Raisoni college of engineering and management
- Mobile Credit: Credit Management System in IJIRSET, Volume 8, Issue 9, September 2019
- Machine Learning base Student Future Orientation and Recommendation System, International Journal of Advanced Research in Science, Communication, and Technology (IJRSCT), Volume 4, Issue 2, April 2021

Personal Details

Father Name: - Mr. Kisan M. Barapatre

Date of Birth: - 03-jul-1987

Permanent Address: - Plot no 499, Yoshodip colony, Mahendra Nagar, Nagpur 17.

Marital Status: - Married

Interest: - Listening to music.

Language Known: - Marathi, Hindi, English.

DECLARATION: *All the above information is true to the best of my knowledge.*