Vaibhav Kumar Sahu

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Linkedin | Github | Portfolio

SUMMARY

Cloud & DevOps engineer specializing in AWS infrastructure, MLOps, Infrastructure-as-Code, and CI/CD automation, with hands-on experience in deployment automation and vulnerability scanning. AWS Certified AI Practitioner, Solution Architect Associate and Certified Ethical Hacker (V12), focused on building secure, automated cloud pipelines from design through deployment.

SKILLS

Programming Languages: Java, Python
Cloud & IaC: AWS (IAM, EC2, EBS, S3, ECS, GuardDuty, KMS, Beanstalk), Terraform
DevOps & Tools: Docker, Kubernetes, GitHub Actions, GitLab CI, CI/CD, Linux, Kali Linux
Version Control: Git, GitHub, GitLab

CERTIFICATIONS

- **Cybersecurity - EC Council Certified Ethical Hacker (V12)**
- **AWS Foundational - AWS Certified AI Practitioner (CLF-C02)**
- **AWS Associate – AWS Certified Solution Architect Associate (SAA- C03), CloudOps Associate (SOA-C03)**

WORK EXPERIENCE

Software Engineer Intern
MatchReach. Bothell, Washington, USA (Remote) Sept 2026 – Present

- Designed and contributed to the core architecture of the PriceSlip App.
- Developed the core scraping engine using Java and Selenium, built a scheduler to periodically check prices and trigger alerts to users within the application.
- Designed and developed the AWS architecture for the application's backend, data storage, and notification functionality.

Software Engineering Intern
AforaTech. Agra, Uttar Pradesh, IN Nov 2025 – Sept 2026

- Designed end-to-end AWS cloud infrastructure using Terraform (IaC) across 3 environments: dev, staging, and production.
- Reduced manual provisioning time by 75% through Infrastructure-as-Code automation.
- Cut environment spin-up time from 3 hours to under 45 minutes using Terraform-based provisioning.
- Built GitHub Actions CI/CD pipelines automating build, test, and deployment workflows, reducing release cycle from 2 days to under 2 hours and eliminating 80% of manual deployment steps.
- Enforced Git best practices (feature branching, PRs, code reviews) across a 4-person team, achieving zero merge conflicts in production over 3 consecutive sprints.

Data Analyst Intern April 2024 – July 2024
Edulyt India. Dwarka, New Delhi, IN

- Cleaned and preprocessed a 500K+ row credit card transaction dataset using Python and Pandas.
- Improved data accuracy by ~35% through systematic data transformation and validation.
- Reduced weekly preprocessing time from 6 hours to under 90 minutes by streamlining the data pipeline.
- Conducted exploratory data analysis (EDA) on credit card transaction and credit banking datasets, surfacing 12 statistically significant risk patterns.
- Translated findings into 3 data-driven business decisions for risk assessment.

PROJECTS

Automated Docker Image Security Scanner

- Built a zero-trust Python security orchestrator integrating 4 tools (Trivy, Hadolint, Gitleaks, Syft) into a single CLI that detected 877 CVEs, 6 hardcoded secrets, and 5 Dockerfile anti-patterns in a demo image — completing a full scan in under 47 seconds.
- Integrated Trivy CVE scanning against 188,000+ vulnerability definitions (NVD, Red Hat, Ubuntu, Alpine), blocking 12 CRITICAL CVEs — including 2 unauthenticated RCE vectors (CVSS 9.8) — before they reached production.

- Implemented Gitleaks secret detection achieving 99.2% detection rate across 70+ secret patterns (AWS keys, GitHub PATs, Slack webhooks) pipeline exits with code 1 on any finding, enforcing a hard security gate on every PR.
- Generated dual-format SBOMs (CycloneDX 260 components + SPDX 261 components) satisfying U.S. Executive Order 14028 compliance requirements; automated HTML, JSON, and Markdown reports delivered to security teams and GitHub PR comments.

Linux User, Group & Backup Automation Script

- Automated user/group provisioning, permission management, and compressed timestamped backups (tar) for 50+ Linux accounts, reducing manual sysadmin time by 90% per cycle.
- Implemented comprehensive activity logging and audit trails capturing 100% of user/group events; validated across 4 Linux distributions (Ubuntu, Debian, CentOS, Kali).

EDUCATION

BENNETT UNIVERSITY, NOIDA — Noida, IN
Masters of Computer Application (MCA) — July 2025 – July 2027
Specialization: - Cybersecurity
CGPA: 9.09

AMITY UNIVERSITY, CHHATTISGARH — Raipur, IN
Bachelors of Computer Application (BCA) — Sept 2022 – July 2025
CGPA: 9.32

PUBLICATIONS

Remote-Controlled Military UGV for Surveillance & Tactical Operations
May 2025 | Journal of Sensor and Cloud Computing (MAT Journals) https://doi.org/10.46610/JOSCC.2025.v02i01.005
Vaibhav Kumar Sahu, Himanshu Soni, Nikunj Patel, MO. Ayan Siddiqui, Er. Nisha Rathore, Dr. Raj Kumar Sahu

PATENTS & INNOVATION

Patent Filed – Remote-Controlled Military UGV for surveillance and tactical operations, featuring ESP32-based real-time video, wireless control, and obstacle detection, with planned AI, GPS autonomy, and cloud analytics.

LEADERSHIP & ACCOMPLISHMENT

Leader (President) – AWS Student Builder Group — 11/2025- Present

- Led 4+ AWS workshops and 1 hackathon reaching 500+ students, mentored 25 juniors on cloud fundamentals, with 3 mentees earning AWS Cloud Practitioner certification.

PRESIDENT – DEVITY CLUB AUC — 08/2024- 03/2025

- Organized 5+ Events on DevOps, Cloud, Networking, 1 major workshops with industry mentor from Microsoft, Dell, Thomson Reuters, Salesforce etc. and grew club active membership from 20 to 250+ students in 7 months.

AWARD & HONORS

Shri Baljeet Shastri Awardee – Amity University, Chhattisgarh

- Awardee University most prestigious & highest student honor Shri Baljeet Shastri Award for performing best in placements, leadership and academics and for best human values. Awarded by Hon'able Governor of Chhattisgarh – Shri Ramen Deka Ji in convocation ceremony.