Priyanshu Kumar

Cloud Engineer — Machine Learning Specialist — AWS Certified — Azure Certified
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PROFESSIONAL SUMMARY

Cloud Computing and Machine Learning professional with expertise in AWS and Azure platforms. Certified AWS Cloud Practitioner and Azure Data Fundamentals professional with hands-on experience in developing cloud-native applications, implementing machine learning models, and automating workflows. Strong background in distributed systems, MLOps, and full-stack development with proven success in hackathons and research projects.

TECHNICAL SKILLS

- **Cloud Platforms:** AWS (EC2, S3, RDS, IAM, Lambda), Azure (Cosmos DB, Data Lake, Functions)
- **Programming:** Python, Java, C++, SQL, HTML/CSS, JavaScript
- **Machine Learning:** TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, OpenCV, CNN, LSTM, Random Forest
- **DevOps & Tools:** Docker, Git, CI/CD, Containerization, REST APIs, NS-3
- **Databases:** MySQL, MongoDB, Azure Cosmos DB
- **Frameworks:** Flask, Streamlit, React, Node.js, Bootstrap

CERTIFICATIONS

AWS Certified Cloud Practitioner — Score: 780/1000 — **June 2025**
Architected secure, scalable cloud infrastructure using AWS services including EC2, S3, RDS, and IAM. Applied AWS Well-Architected Framework principles to optimize cost, performance, and reliability.
Verify Credential

Microsoft Certified: Azure Data Fundamentals (DP-900) — Score: 750/1000 — **June 2025**
Designed data ingestion pipelines using Azure SQL, Cosmos DB, and Data Lake. Implemented ETL workflows for machine learning datasets, improving processing efficiency by 35%.
Verify Credential

EDUCATION

B.Tech in Computer Science & Engineering   **August 2023 - May 2027**
Vellore Institute of Technology (VIT), Bhopal
Specialization: Cloud Computing & Automation — CGPA: 8.24/10
Relevant Coursework: Cloud Architecture, Distributed Systems, Machine Learning, Data Engineering, Network Security

Class XII (CBSE)   **April 2023**
Kendriya Vidyalaya Janakpuri, Delhi — Percentage: 82%

Class X (CBSE)   **March 2021**
International Indian Public School (IIPS), Riyadh — Percentage: 84.6%

PROFESSIONAL EXPERIENCE

Research Intern — GHG Emissions Monitoring Project   **May 2025 - August 2025**

- Led 4-member Agile team using Scrum methodology, delivering cloud analytics milestones 2 weeks ahead of schedule
- Developed real-time ML forecasting models using Python and Scikit-Learn, achieving 91% precision in CO/CH emissions prediction
- Automated carbon credit reporting dashboard using Flask, reducing manual effort by 40% and accelerating compliance cycles

- Created comprehensive system documentation and presented technical insights to cross-functional teams

TECHNICAL PROJECTS

AI-Based QoS-Aware Routing for Fog Networks (IEEE Research Paper - Under Process)   **July 2025 - Present**

- Developed AI-driven routing framework using Reinforcement Learning and Deep Q-Networks for fog computing environments
- Implemented blockchain security layer with 96.7% attack detection accuracy and tamper-resistant validation
- Achieved 35% latency reduction, 15% higher packet delivery ratio, and 30% lower energy consumption through NS-3 simulations

Deepfake Detection System   **February 2025 - March 2025**

- Implemented hybrid CNN+LSTM model on FaceForensics++ dataset with 93% test accuracy
- Deployed REST API using Flask and developed React frontend for real-time inference

Forest Fire Prediction System   **September 2024 - December 2024**

- Built ML pipeline using Random Forest achieving 92% classification accuracy on weather data
- Containerized full-stack application with Docker and deployed on AWS EC2, supporting 200+ users

ACHIEVEMENTS

- **NASSCOM Agentic AI Hackathon Finalist** (Top 10 among 3,848 teams) — October 2025
- **Grab Hackathon Top 10%** (Ranked 450 out of 4,539 teams) — March 2025