

# Ayush Kumar

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## PROFESSIONAL SUMMARY

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Innovative **Software Engineer and AI/ML Specialist** with 2.6 years of experience in architecting scalable web applications and deploying Generative AI solutions. Proficient in bridging the gap between Data Science and DevOps (MLOps) by leveraging **AWS, Docker, and CI/CD** to productionize LLMs and RAG systems. Proven expertise in **Python, Ruby on Rails, and PyTorch**, focused on reducing latency and automating high-impact data pipelines.

## SKILLS

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**AI/ML & Data Science** Python, TensorFlow, PyTorch, LangChain, OpenAI API, RAG Pipelines, Fine-Tuning (LoRA), Computer Vision, NumPy, Pandas, Scikit-learn, Statistical Modeling  
**Languages** Ruby, JavaScript (ES6+), SQL, C++, HTML5, CSS3  
**Frameworks** Ruby on Rails, React.js, FastAPI, Bootstrap  
**Cloud & Databases** AWS (EC2, S3, Lambda), Docker, PostgreSQL, MongoDB, Pinecone (Vector DB), CI/CD, Redis, SageMaker

## EXPERIENCE

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**Software Engineer** Jul '23 — Present  
Octascale Technologies Private Limited. Prayagraj, India

- Spearheaded end-to-end development of web apps using Ruby on Rails, Python for 10,000+ users.
- AI Integration: Engineered a Python-based microservice to automate data pipelines, reducing manual entry time by 40%.
- Architected efficient RESTful and GraphQL APIs, improving system interoperability and reducing latency by 30%.
- Managed deployment pipelines using AWS (EC2, S3) and Docker to ensure scalable production environments.

## PROJECTS

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**Enterprise RAG Knowledge Bot (Python, LangChain, Pinecone, AWS)**, Self-Project Nov '25 — Dec '25

- Developed a Retrieval-Augmented Generation (RAG) chatbot answering queries from internal docs with 95% accuracy.
- Implemented vector search using Pinecone and OpenAI Embeddings; deployed via AWS Lambda.

**PARIKSHA - AI Exam Proctoring (TensorFlow, Computer Vision, React)**, Self-Project Jan '23 — Apr '23

- Engineered a remote proctoring solution leveraging Computer Vision to detect suspicious behavior (gaze tracking).
- Achieved 92% detection accuracy by fine-tuning a CNN model on a custom dataset of exam environments.

**Trakstar - HR Management System (Ruby on Rails)**, Octascale Technologies Sep '25 — Dec '25

- Built a cloud-based talent management platform integrating Python scripts for automated performance analytics.

**Tempmate Cloud - Real-time Supply Chain Monitoring**, Octascale Technologies Jan '23 — Present

- Real-time logistics and sensor-data modules to monitor supply chain telemetry, ensuring high-fidelity data ingestion for predictive analytics.
- Architected** and deployed a real-time logistics monitoring platform on **AWS**, utilizing **EC2** for scalable compute and **S3** for secure telemetry data storage.

## EDUCATION

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**Bachelor of Technology in Computer Science and Engineering**, United College of Engineering and Research | Prayagraj, India. Aug '19 — Apr '23

## CERTIFICATIONS

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**RANK 3639 in Machine learning**, Certified by TechGig.com  
**Machine Learning workshop**, IIIT ALLAHABAD  
**Geospatial Application for Risk Management (Track 1 and Advanced Track 2)**, ISRO  
**Machine Learning (Top Performer)**, Internshala

## VOLUNTEERING

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**Technical Mentor**, United college of Engineering and Research. Feb '22 — Mar '23  
Provided peer-to-peer guidance on Python and Data Structures to junior engineering students, enhancing department-wide technical literacy.