# Lokesh Kumar A R

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## **Executive Summary**

High-achieving AI/ML Engineering student with 9.63 CGPA from IIT Madras and Hindustan University. Creator of QritiQ—a university-funded AI evaluation platform achieving 95% accuracy using OpenAI Whisper, Ollama, and Mistral models, securing institutional investment. Expertise in Generative AI, LLMs, Multi-Agent Systems, Docker containerization, and Prompt Engineering with hands-on experience in production-ready AI system development.

### Education

#### Indian Institute of Technology (IIT) Madras

Jan 2025 – Jan 2028

Bachelor of Science - Data Science and Applications

Dual Degree Online Program

• Specialization: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, LLMs, AI Full Stack Dev Hindustan Institute of Technology and Science July 2023 - May 2027

Bachelor of Technology - Computer Science Engineering

Chennai

- CGPA: 9.63/10 (Current) | Academic Rank: 2nd in Program | Certificate of Proficiency
- Core Focus: AI & Expert Systems, Machine Learning, Advanced Data Structures, Algorithms, DBMS, Software Testing

#### Technical Skills

**Programming:** Python (Advanced), Java, C/C++, SQL

AI/ML: PyTorch, TensorFlow, Scikit-learn, OpenAI Whisper, Transformers, LLMs, Multi-Agent Systems, RAG

MLOps: Docker, Ollama, Models, Model Context Protocol (MCP), CI/CD, Edge AI Deployment Data Science: Pandas, NumPy, Matplotlib, Seaborn, Statistical Analysis, Jupyter Notebooks

Backend: FastAPI, Flask, SQLAlchemy, MongoDB, REST APIs, Database Design Tools: Git/GitHub, Linux, VS Code, Container Orchestration, Prompt Engineering

## Professional Experience

#### AI Research and Development Intern

May 2025 - Present

Hindustan Institute of Technology and Science

Chennai

Remote

- Designed and developed QritiQ, an AI-powered Self-Intro Evaluation platform analyzing communication effectiveness
- Achieved 66% reduction in manual evaluation time while maintaining assessment depth and precision
- Integrated Whisper ASR models with LLM systems for automated speech and presentation evaluation
- Implemented local LLM deployment using Ollama and Mistral models achieving 80% cost reduction vs cloud APIs
- Secured university financial investment for commercialization and multi-institutional deployment

#### Artificial Intelligence with Python Intern

Oct 2024 - Nov 2024

Cothon Solutions

Gained hands-on experience in Machine Learning and Deep Learning algorithms, including CNN and MTCNN

- Implemented image recognition and facial detection projects, enhancing practical ML application skills
- Developed comprehensive understanding of model training, evaluation metrics, and deployment challenges
- Adapted quickly to new concepts, independently researching unfamiliar algorithms and tools

## **Key Projects**

QritiQ - AI-Powered Interview Evaluation System Ollama, Mistral, Docker

- Architected end-to-end ML pipeline achieving 95% speech recognition accuracy using OpenAI Whisper
- Implemented Mistral 7B and Llama models in Docker containers achieving 80% cost reduction vs cloud APIs
- Built production-ready FastAPI backend with SQLAlchemy ORM and real-time processing
- Secured college investment for commercialization targeting multi-institutional deployment

Academic Project

- Face Detection & QR Attendance Management OpenCV, MTCNN, Flask

  Engineered hybrid computer vision solution achieving 98% facial recognition accuracy using OpenCV and
  - Implemented liveness detection algorithms preventing spoofing attacks with dynamic QR code generation
  - Built dual-verification system combining facial recognition with QR scanning for enhanced security

#### Achievements & Leadership

Major Achievements

2024-2025

- Winner: AI Genesis Inter-College Competition | INNOTHON 2025 (20+ competing institutions)
- 2nd Rank with CGPA 9.63 | Certificate of Proficiency | Hindustan University
- University Recognition: Secured financial investment for QritiQ project commercialization
- Project Lead: Led QritiQ development from concept to university investment

#### Certifications

2023-2025

- Docker Foundations Professional | GitHub Foundations | ChatGPT Prompt Engineering for Developers
- Google Data Analytics Specialization | BCG GenAI Job Simulation | Data Literacy Certification
- Accenture Data Analytics & Visualization Virtual Experience | Git & GitHub by IBM