

Rajveer Jadav

+1 437 608 0339 | r2jadav@uwaterloo.ca | rajveerjadav19@gmail.com | LinkedIn | GitHub

PROFESSIONAL SUMMARY

- AI/ML Engineer specializing in generative AI, LLMs, RAG systems, scalable ML solutions, and MLOps practices. Experienced in research-driven model development, production deployment with MLflow, DVC, and Weights & Biases, and full-stack AI applications, focusing on accuracy, efficiency, and user-centric outcomes.

EDUCATION

University of Waterloo <i>Master of Engineering in Electrical & Computer Engineering</i>	Waterloo, ON Aug 2024 – Aug 2025
Sri Sivasubramaniya Nadar College of Engineering <i>BTech Information Technology</i>	Chennai, India Jul 2019 – May 2023

EXPERIENCE

ML Graduate Researcher <i>University of Waterloo</i>	May 2025 – Oct 2025 Waterloo, ON
- Led development of Bimodal Multi-Scale Attention Autoencoder (Bi-MSAAE) for facial image/video denoising under the supervision of Prof. Sagar Naik; integrated multi-scale encoder, noise gate, channel attention, and dual-head decoder for RGB/grayscale modalities. - Achieved PSNR gains of 6.25 dB (to 31.18 dB) on CELEBA-HQ and 3.85 dB (to 28.57 dB) on FER2013; improved SSIM up to 0.92, outperforming FFDNet and FastDVDnet baselines. - First-authored paper “Bimodal Multi-Scale Attention Autoencoder (Bi-MSAAE) for Facial Image and Video Denoising” submitted to IEEE Access.	
Full Stack Developer <i>Lead-On-Leads PVT LTD</i>	May 2023 – Jul 2024 Kathmandu, Nepal
- Developed and maintained web applications using React.js and Node.js with RESTful APIs. - Built a prototype AI chatbot to explore LLM integration for internal tools. - Assisted in testing workflows and supported deployment processes. - Gained hands-on experience with Docker and AWS services for development and deployment.	

PROJECTS

AI-Powered Study Assistant <i>LangChain, LLM, RAG, ChromaDB, Firebase, Streamlit, Python</i>	- Built production-ready AI study assistant using LangChain, LLMs, and RAG with ChromaDB/Firebase for secure retrieval; supports syllabus summarization, Q&A, and quiz generation.
Agentic RAG Customer Support Chatbot <i>Claude, MCP, FAISS, FastAPI, Docker</i>	- Developed scalable chatbot with agentic AI, LLMs, and RAG via MCP for tool integration; enables multi-step reasoning, cited responses, and memory for support tickets.
MLOps Projects <i>DVC, AWS, GitHub, MLflow, W&B, TensorFlow, Scikit-learn</i>	- Automated ML pipelines for ingestion, training, evaluation, and storage using DVC/AWS S3; tracked experiments with MLflow, W&B, including hyperparameter tuning and CI/CD.
Financial AI Agent <i>Phidata, Mistral, Open-Source LLM, LangChain</i>	- Developed financial AI agent prototype using Phidata and Mistral for intelligent query handling and insights generation.
Generative AI Web Suite <i>Python-Streamlit, Mistral API, GitHub, Railway</i>	- Deployed AI apps (Cover Letter Generator, Code Debugger, Story Generator, Chatbot) with Mistral APIs, interactive frontends, and CI/CD via GitHub/Railway.
Service Provider Web-app <i>React, Firebase, AWS, Selenium, Jest, Railway</i>	- Built “Fixify” for home maintenance booking with authentication, real-time features, service discovery, and reviews; added Selenium/Jest testing.

PUBLICATIONS

Bimodal Multi-Scale Attention Autoencoder (Bi-MSAAE) for Facial Image and Video Denoising, Rajveer Jadav, Marzia Zaman, Darshana Upadhyay, Kshirasagar Naik. IEEE Access, under review, 28th Oct. 2025.

TECHNICAL SKILLS

AI/ML/GenAI: Python, TensorFlow, Keras, CNN, OpenCV, Generative AI, Mistral/Gemini APIs, Large Language Models (LLMs), RAG, LangChain, LangGraph, MCP, Agentic AI, MLflow, DVC, Weights & Biases, Docker, AWS SageMaker/S3
Web Development: React, HTML, CSS, JavaScript, Bootstrap, Streamlit, Node.js, Express, REST APIs, SEO, Selenium, Jest
Databases: SQL, MongoDB, Firebase
Data Analysis & Visualization: Power BI, Tableau, MATLAB
Programming & Algorithms: C#, C++, C, Graph Theory, Multi-threading, CMake, Linux
IT/Tools/Platforms: Jira, Bomgar, TeamViewer, GitHub, Colab, VS Code, Jupyter, Railway, MS 365, Zoom

LANGUAGES

English, Hindi, Gujarati: Professional Proficiency