Rohit Vilas Ingole

Backend Developer | Python & Go Developer | Machine Learning Engineer

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DataRohit Rohit Vilas Ingole kaggle datarohitingole

PROFESSIONAL EXPERIENCE

Rapid Innovation, Python Developer / AI Developer ∂

• Built real-time voice AI agents using OpenAI, LiveKit with context-managed memory (Remote) Noida, • Created Model Context Protocol servers for dynamic data access including web scraping Uttar Pradesh, India

• Implemented agent-to-agent protocols for collaborative multi-agent environments

Third Origin LLC, Python Developer / Backend Developer ⊗

Sep 2023 - Dec 2023 • Implemented diverse testing strategies for comprehensive software validation (Remote) Raleigh, Developed CLI tool for bulk task execution, optimizing software scalability North Carolina, USA

Implemented pytest for stress testing Celery workers, analyzing latency and efficiency

iHUB DivyaSampark IIT Roorkee, Machine Learning Engineer €

• Developed ML model to forecast retail sales, enhance inventory management

• Contributed to a data analysis project for a hydroelectric dam, extracting insights

Applied ML techniques to optimize dam operations, enhancing efficiency and resource

Jun 2023 – Jul 2023 (Remote) Roorkee,

Uttarakhand, India

Dec 2024 - Jun 2025

PROJECTS

AgentSphere - AI Agent Collaboration Platform ∂

- Built multi-agent AI chat platform supporting real-time group chats via WebSockets and secure LLM integrations
- Added auto-generated AI agents with dynamic prompts and integrated MCP tools for external service automation
- Skills: django, rest, postgresql, redis, celery, websocket, hashicorp vault, flower, autogen, mcp, nextjs, tailwind

Stockastic Revamped - Real-Time Stock Monitoring Platform ∂

- Built a stock monitoring platform with real-time insights, secure authentication, and favorite stock tracking
- Added interactive Plotly graphs and advanced tools for performance visualization and analysis
- Skills: python, redis, django, websocket, plotly, pytest, tailwindcss, s3 storage, postgresql, nginx, yfinance

Order Management System *∂*

- Built microservices e-commerce system with authentication, inventory management, and Stripe payments
- Implemented Docker-containerized architecture with service discovery and message queuing
- Skills: go, gin, gRPC, mongodb, rabbitmq, redis, docker, stripe api, jwt authentication, consul, jaeger, swagger

PUBLICATIONS

TranSegNet: A Hybrid Transformer Model for Satellite Imagery Segmentation with Performance Benchmark, Procedia Computer Science Internation Journal (ELSEVIER) (Published) ∅

Remote Sensing | Deep Learning | Image Processing | Image Segmentation | Hybrid Model | Transformer Model Skills: python, opencv, tensorflow, plotly, pillow, keras, scikit-learn, transformer, attention-mechanism

Refining Cyclonic Cloud Analysis Via INSAT-3D Satellite Imagery and Advanced Image Processing Techniques, International Journal of Image, Graphics and Signal Processing (IJIGSP) (Published) &

Satellite Remote Sensing | Cyclone Detection Algorithms | Image Normalization Techniques | Image Segmentation Skills: python, pandas, numpy, scipy, matplotlib, seaborn, plotly, pillow, opencv, tensorflow, keras

Satellite Image Segmentation for Forest Fire Risk Detection using Gaussian Mixture Models, 2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC) (Published) 🔗

Vegetation Mapping | Environmental Monitoring | Image Processing Techniques | Image Segmentation Algorithms Skills: python, pandas, numpy scipy, matplotlib, seaborn, plotly, pillow, opency, pytroch, torchvision

EDUCATION

G. H. Raisoni College of Engineering (CGPA 9.34), B. Tech Data Science ∂

Courses: Machine Learning | Computer Vision and Deep Learning | Data Preprocessing Computer Networks | Natural Language Processing | Computer Vision | Data Science

Jul 2021 - present (On-Site) Nagpur, Maharashtra, India