

# Rohit Vilas Ingle

Python Developer | Backend Developer | AI/ML Developer

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## PROFESSIONAL EXPERIENCE

<b>Rapid Innovation, Python Developer / AI Developer</b> 🔗 <ul style="list-style-type: none"><li>Built real-time voice AI agents using OpenAI, LiveKit with context-managed memory</li><li>Created Model Context Protocol servers for dynamic data access including web scraping</li><li>Implemented agent-to-agent protocols for collaborative multi-agent environments</li></ul>	Dec 2024 – Jun 2025 (Remote) Noida, Uttar Pradesh, India
<b>Third Origin LLC, Python Developer / Backend Developer</b> 🔗 <ul style="list-style-type: none"><li>Implemented diverse testing strategies for comprehensive software validation</li><li>Developed CLI tool for bulk task execution, optimizing software scalability</li><li>Implemented pytest for stress testing Celery workers, analyzing latency and efficiency</li></ul>	Sep 2023 – Dec 2023 (Remote) Raleigh, North Carolina, USA
<b>iHUB DivyaSampark IIT Roorkee, Machine Learning Engineer</b> 🔗 <ul style="list-style-type: none"><li>Developed ML model to forecast retail sales, enhance inventory management</li><li>Contributed to a data analysis project for a hydroelectric dam, extracting insights</li><li>Applied ML techniques to optimize dam operations, enhancing efficiency and resource</li></ul>	Jun 2023 – Jul 2023 (Remote) Roorkee, Uttarakhand, India

## PROJECTS


<b>Zenith - CLI Based AI Coding Agent</b> 🔗 <ul style="list-style-type: none"><li>Built a CLI-based AI coding agent that transforms natural language into production-ready code with real-time streaming</li><li>Integrated extensible file system tools, flexible config (JSON/ENV), robust error handling, 100% test coverage</li><li><b>Skills:</b> Python, Typer, Rich, AutoGen, Gemini API, OpenAI API, python-dotenv, pytest, ruff, pypi, github actions ci/cd</li></ul>
<b>AgentSphere - AI Agent Collaboration Platform</b> 🔗 <ul style="list-style-type: none"><li>Built multi-agent AI chat platform supporting real-time group chats via WebSockets and secure LLM integrations</li><li>Added auto-generated AI agents with dynamic prompts and integrated MCP tools for external service automation</li><li><b>Skills:</b> django, rest, postgresql, redis, celery, websocket, hashicorp vault, flower, autogen, mcp, nextjs, tailwind</li></ul>
<b>Stockastic Revamped - Real-Time Stock Monitoring Platform</b> 🔗 <ul style="list-style-type: none"><li>Built a stock monitoring platform with real-time insights, secure authentication, and favorite stock tracking</li><li>Added interactive Plotly graphs and advanced tools for performance visualization and analysis</li><li><b>Skills:</b> python, redis, django, websocket, plotly, pytest, tailwindcss, s3 storage, postgresql, nginx, yfinance</li></ul>
<b>Order Management System</b> 🔗 <ul style="list-style-type: none"><li>Built microservices e-commerce system with authentication, inventory management, and Stripe payments</li><li>Implemented Docker-containerized architecture with service discovery and message queuing</li><li><b>Skills:</b> go, gin, gRPC, mongodb, rabbitmq, redis, docker, stripe api, jwt authentication, consul, jaeger, swagger</li></ul>

## PUBLICATIONS

<b>TranSegNet: A Hybrid Transformer Model for Satellite Imagery Segmentation with Performance Benchmark, Procedia Computer Science Internation Journal (ELSEVIER) (Published)</b> 🔗 Remote Sensing   Deep Learning   Image Processing   Image Segmentation   Hybrid Model   Transformer Model <b>Skills:</b> python, opencv, tensorflow, plotly, pillow, keras, scikit-learn, transformer, attention-mechanism
<b>Refining Cyclonic Cloud Analysis Via INSAT-3D Satellite Imagery and Advanced Image Processing Techniques, International Journal of Image, Graphics and Signal Processing (IJIGSP) (Published)</b> 🔗 Satellite Remote Sensing   Cyclone Detection Algorithms   Image Normalization Techniques   Image Segmentation <b>Skills:</b> python, pandas, numpy, scipy, matplotlib, seaborn, plotly, pillow, opencv, tensorflow, keras
<b>Satellite Image Segmentation for Forest Fire Risk Detection using Gaussian Mixture Models, 2023 2nd International Conference on Applied Artificial Intelligence and Computing (ICAAIC) (Published)</b> 🔗 Vegetation Mapping   Environmental Monitoring   Image Processing Techniques   Image Segmentation Algorithms <b>Skills:</b> python, pandas, numpy scipy, matplotlib, seaborn, plotly, pillow, opencv, pytorch, torchvision

## EDUCATION

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**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