

Rishabh Tiwari

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Skills

Languages: Python, Java, JS, TypeScript, C#

Frameworks: Angular, .NET, Flask, Django, TensorFlow

Databases: SQLite, MongoDB

Tools: Git, Azure DevOps, Vercel

Experience

Full-Stack Application Developer, IBM – Pune, Maharashtra

June 2022 – Present

- Engineered modules for a Java-based CRM platform, improving customer and asset workflows.
- Built Angular UI modules and REST microservices enabling lifecycle management for 2,000+ telecom assets.
- Implemented persona-based features using micro-frontend architecture to streamline deployment.
- Integrated AI-assisted development and automated testing, increasing unit test coverage to 80%.
- Refactored legacy modules to enhance performance, readability, and maintainability across teams.

AI Engineer, Collaborative Intelligence – Noida, UP

June 2021 – June 2022

- Engineered computer vision pipelines for high-resolution object detection, boosting accuracy by 15%.
- Integrated AI workflows into production pipelines, enhancing real-time analysis and prototype delivery.

Software Test Engineer, Conduent – Noida, UP

July 2020 – May 2021

- Designed 500+ test cases and validated SQL data integrity, reducing post-release defects by 15%.
- Accelerated sprint cycles by 25% by generating reproducible JIRA defect reports with full regression coverage.

Projects

Selected peer-reviewed research and applied AI projects in computer vision, deep learning, and image analysis.

Deep Learning Approach for Object Detection in Satellite Imagery

Expert Systems (Wiley), April 2023

- Engineered a modified YOLOv4 architecture for small-object detection in high-resolution satellite imagery.
- Boosted detection speed and accuracy by integrating TensorFlow Object Detection API into a unified pipeline.

Computer Vision and Deep Learning for Waste Management Systems

IEEE ICACITE Conference, April 2022

- Designed deep learning model for automated waste classification, improving sorting accuracy and efficiency.
- Applied computer vision techniques to enhance municipal waste management workflows.

Detection of Camouflaged Drones Using Computer Vision

IEEE CISES Conference, January 2022

- Built CNN-based system for detecting camouflaged UAVs in complex backgrounds, enhancing accuracy.
- Addressed real-world security challenges in low-visibility environments using deep learning.

Apple Fruit Disease Detection Using K-Means Clustering

Springer, October 2021

- Developed a MATLAB-based tool for agricultural disease detection using neural networks.
- Achieved 5% accuracy gain over baseline through optimized clustering and classification techniques.

Certifications and Achievements

Google Cloud Portfolio (2023) – Google Cloud

AZ-900: Microsoft Azure Fundamentals(2022) – Microsoft

Certified Tester Foundation Level (2022) - ISTQB

Education

Bachelor of Technology in Electronics and Communications – NIT, Durgapur

2020