

# Rishabh Tiwari

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## Skills

**Manual testing & Automation testing:** TCD, RTM, UAT, DRT, JUnit, TestNG, Maven, JIRA,  
**Languages:** Java, Python, JS

# Experience

**Associate Systems Engineer, IBM India Pvt. Ltd. – Pune, Maharashtra** June 2022 – July 2023

- Reduced post-release defects by 15% by designing 500+ test cases and validating data integrity with SQL.
  - Accelerated sprint cycles 25% with JIRA defect reports with reproducible steps and regression coverage.
  - Improved defect resolution time by 18% through structured triage and close collaboration with developers.

**Student Intern**, Collaborative Intelligence Pvt. Ltd. – Noida, UP Jun 2021 – May 2022

- Developed and implemented computer vision systems to handle high-resolution images for object detection
  - Achieved a 15% boost in detection accuracy and a 10% improvement in object detection and tracking speed.
  - Enhanced prototype deliverables by integrating AI workflows into production pipelines for real-time analysis.

# 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 operational efficiency.
  - Applied computer vision techniques to enhance municipal waste management workflows.

Detection of Camouflaged Drones Using Computer Vision IEEE CISES Conference, January 2022

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

Apple Fruit Disease Detection Using K-Means Clustering Springer, October 2021

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

# Education

Amity University – B.Tech in Electronics and Communications Engineering

May 2022