

Yash Singh

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[LinkedIn](#)

[GitHub](#)

Education

VIT Bhopal University

B.Tech in Computer Science & Engineering (AI & ML); CGPA: 7.93

Bhopal, India

2022 – 2026

Kendriya Vidyalaya, AFS

Class XII (CBSE): 71.6%

Thane, India

2022

Sri Ma Vidyalaya

Class X (CBSE): 86.6%

Thane, India

2020

Projects

Breast Cancer Detection

ML Team Member

Nov 2023 – Dec 2023

- Built a **CNN-based deep learning model** for breast cancer detection using **image preprocessing, augmentation**, and hyperparameter tuning, achieving **87% accuracy**.
- Stack:** Python, TensorFlow, Keras, OpenCV — **Repo:** github.com/yash04045/Breast-Cancer-Detection

HarvestHub: AI-Driven Agriculture

ML Team Member

July 2024 – Nov 2024

- Developed **ML & CNN models** for crop recommendation, yield prediction, and plant disease detection, achieving **99%+ accuracy** using hyperparameter tuning and optimization techniques.
- Stack:** Python, TensorFlow, Flask, React.js, AWS, Scikit-learn — **Repo:** github.com/yash04045/Harvesthub

Flood Scene Semantic Segmentation

Deep Learning Engineer

Aug 2025 – Sep 2025

- Implemented end-to-end **semantic segmentation pipeline** using **DeepLabV3-ResNet101** on FloodNet dataset, with **Focal-Dice loss** for class imbalance, achieving **0.30 mIoU**.
- Built **augmentation and preprocessing pipeline** using Albumentations, evaluation scripts with OpenCV/Matplotlib, and applied learning rate scheduling for optimization.
- Stack:** PyTorch, Torchvision, OpenCV, Albumentations, NumPy — **Repo:** github.com/yash04045/flood_segmentation

Certifications

- Coursera: Applied Machine Learning using Python (ML, Feature Engineering, Supervised/Unsupervised Learning)
- Apna College: Data Structures & Algorithms in Java (DSA, Algorithm Design, Problem Solving)
- Vityarthi: Computer Vision (Object Detection, Deep Learning, Image Processing)

Extracurricular

Startup Club, VIT Bhopal

Mar 2024 – Aug 2025

Student President

- Led and mentored **15+ student startups**, guiding ideation, MVP development, and project execution.

MUN Club, VIT Bhopal

Aug 2023 – Aug 2024

Head Volunteer

- Managed volunteer teams and executed academic events, demonstrating leadership and coordination skills.

Technical Skills

- Languages:** Java, Python, C++, SQL, Bash
- Frameworks/Tools:** PyTorch, TensorFlow, Keras, Scikit-learn, OpenCV, Flask, React.js, AWS, Git, NumPy, Pandas
- Concepts:** Machine Learning, Deep Learning, Neural Networks, CNN, RNN, Computer Vision, NLP, DSA, OOP, Algorithm Design, Optimization, Data Preprocessing, Computer Networks, OS

Relevant Coursework

- Data Structures and Algorithms (DSA, Algorithm Design, Problem Solving)
- Machine Learning & Deep Learning (Supervised/Unsupervised Learning, Neural Networks, CNN, RNN)
- Computer Vision & NLP (Object Detection, Semantic Segmentation, NLP Applications)