

# Avijit Pakhira

Innovative and dedicated professional with a robust background in AI ML. Known for a strong work ethic, exceptional problem-solving skills, and a keen eye for detail. Proficient in leveraging advanced technologies, including AI and machine learning, to drive efficiency and innovation.

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## EXPERIENCES

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### Virtunexa

Python Developer internship

10 Jan 2025 - 9 Feb 2025

- **UI and Log-Based Grade System**
- **Speech-Enabled Calculator**
- **Speech-Enabled Virtual Assistant**
- **News Scraping Web App**

### Pinnacle

Data Science Interenship

12 Dec 2024 - 11 Jan 2025

- **AI-based road lane detection system**

This AI-based **road lane detection system** leverages **computer vision** and **deep learning** to enhance **autonomous driving** and **road monitoring** by accurately identifying lane markings in real time. It utilizes **OpenCV** for image processing

## EDUCATION

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### JIS UNIVERSITY

Bachelor In Technology in CSE - 9.4

September 2022 - July 2026

## PROJECTS

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### Live Object Detection - OpenCV [🔗](#)

September 2024

I implemented real-time object detection using OpenCV and YOLOv3. It captures video frames, detects objects, and draws bounding boxes for those with confidence above 0.5. Non-maximum suppression removes overlapping boxes, and the video runs until 'q' is pressed.

### Smart-Water-Level-Monitoring

07 September 2024 - 14 September 2024

The **Smart Water Level Monitoring System** uses IoT to automate tank refilling with **NodeMCU**, **sensors**, and a **pump**. It ensures real-time monitoring, remote control, and optimized water usage, making it ideal for homes and commercial spaces.

### OMR Checking - OpenCV [🔗](#)

June 2024

We are using computer vision to compare two OMR sheets—one correct and one test. It identifies the correct bubbles and calculates the score. We plan to implement this process live.

### Diabetes Prediction - ML

April 2024

I used a Kaggle Diabetes dataset to enable early detection and personalized treatment. The process involved data collection, preprocessing, feature selection, model training, and evaluation, aiming to improve patient outcomes and optimize healthcare resources.

Web Development

Frontend :- HTML, CSS, Java Script, Bootstrap

Backend :- mysql and Php

## TECHNICAL SKILLS

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- Microsoft office
- Python
- C
- AI/ML/DL
- OpenCV
- HTML, CSS, Java script
- SQL

## CERTIFICATE

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**Winter Certification Program on Prompt Engineering by CSRBOX collaborate with IBM SkillsBuild**

**NPTEL certificate in COA**

**DITA – Diploma in Information Technology Application**

**ADITA – Advanced Diploma in Information Technology Application**

## AWARD

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**Certificate of Achievement in MADE IN JIS CELEB Idea-O-Meter**

**Participate Certification in Parul Hack Verse Parul University**

## Research Paper

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**Precision Agriculture with Machine Learning: Optimizing Soil Moisture and Crop Selection.**

It is a **certificate** from the **icSoftComp2024** conference, organized by **Charotar University of Science & Technology (CHARUSAT)**, India, and held in **Bangkok, Thailand**, from **December 10-12, 2024**.

It certifies that **Disha Banerjee, Arnab Roy, Avijit Pakhira, Debmitra Ghosh, and Dibyarupa Pal** have presented a research paper titled:

**"Precision Agriculture with Machine Learning: Optimizing Soil Moisture and Crop Selection."**

The certificate is issued under the banner of **Springer** and features decorative gold borders, a blue signature, and the official logos of **Springer** and **CHARUSAT**.