# Rishi Shankar

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Portfolio

# Summary

I had done my Engineering degree in Electronics and Communication Engineering from NIT Patna. Throughout my academic journey, I have developed a strong foundation in core ECE subjects such as digital electronics, analog electronics, wireless communication, microwave engineering IoT and MATLAB. Alongside, I have cultivated a deep passion for Artificial Intelligence and have successfully completed numerous AI projects using frameworks and tools like TensorFlow, Scikit-learn, and YOLO.

## **Skills**

Languages: Python, HTML, CSS, C, C++, Java

Developer Tools: VS Code, Anaconda, Kaggle, GitHub, IntelliJ, Google Colab, Git

Frameworks: Speech Recognition, Scikit-Learn, Matplotlib, TensorFlow, Pandas, NumPy, OpenCV.

Cloud/Databases: MySQL, Amazon Web Services

**Soft Skills**: Communication, Leadership, Problem-Solving, Teamwork, Time Management, Strategic Thinking **Coursework**: DSA, OOPs, OS, DBMS, Computer Networks, MATLAB, Machine Learning, Digital Signal and

Processing, Digital Electronics, AI

Areas of Interest: Machine Learning Algorithms, Artificial Intelligence Data Science, Data Structures and Algorithms

# **Work Experience**

DATA SCIENCE INTERN | BrainOVision Solutions India Pvt Ltd. (Hyderabad) | GitHub Jan 2025 – June 2025 Developed an end-to-end application to detect and classify potato leaf diseases—Healthy, Early Blight, and Late Blight—using a Convolutional Neural Network (CNN) model. The system integrates a TensorFlow-based CNN for image classification, a FastAPI backend for handling predictions, and a Node.js frontend for user interaction. Implemented data preprocessing and augmentation techniques to enhance model accuracy.

#### SUMMER INTERN | Pregrad (Remote) | GitHub

Jun 2023 – Sept 2023

Learned core AI/ML concepts over a three-month program. Built a movie recommendation system using a 5,000-entry dataset with content-based filtering and similarity measures.

# **Research Work / Projects**

## WCE Image Abnormality Detection | Research Project | NIT Patna, India | GitHub

**Jul 2024 – Dec 2024** 

Designed a real-time detection system to classify abnormalities in wireless capsule endoscopy images. Targeted issues like bleeding and ulcers with a focus on accuracy and clinical relevance. Involved in data annotation, model training, and testing.

## BREAST CANCER DETECTION | Research Project | NIT Patna, India | GitHub

Jan 2024 - Jun 2024

Built a deep learning model using YOLOv8 to detect cancerous regions in medical images with high precision. Focused on annotation, training, and evaluation using mAP/IoU scores.

#### JARVIS – Virtual AI Desktop Assistant | AI Automation | (Personal Project) GitHub

Dec 2023

Developed a voice-activated AI desktop assistant capable of executing various tasks through natural language commands. The assistant can play music, perform web searches, open and close applications, provide Wikipedia summaries, and handle system operations like opening Notepad or the calculator. Implemented features such as wakeword detection, voice input processing, and auditory feedback to enhance user interaction.

## Education

**B. TECH IN ECE** | NIT, Patna | 6.7 (CGPA) (CLASS XII) CBSE | Holy Cross International School, Patna | 89.6% (CLASS X) CBSE | Holy Cross International School, Patna | 84%

2021 - 2025

2020 - 2021

2018 - 2019

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