Rishi Shankar

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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 | Brain O Vision Solutions India Pvt Ltd. (Hyderabad) | GitHub **Jan 2025 – Present**
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 **Jul 2024 – Dec 2024**
Designed a real-time detection system using YOLOv11 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 wake-word detection, voice input processing, and auditory feedback to enhance user interaction.

Education

B. TECH IN ECE | NIT, Patna | 6.78 (CGPA) **2021 - 2025**
(CLASS XII) CBSE | Holy Cross International School, Patna | 89.6% **2020 - 2021**
(CLASS X) CBSE | Holy Cross International School, Patna | 84% **2018 - 2019**