

Aryan Singh

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Education

Bachelor of Technology in Computer Science (AI and Robotics) Vellore Institute of Technology, Chennai 2021 – 2025

Senior Secondary, Science Seth Anand Ram Jaipuria School, Ghaziabad 2021: 86%

Secondary Education Seth Anand Ram Jaipuria School, Ghaziabad 2019: 92%

Experience

Summer Research Intern Under Prof. Karthik R, VIT Chennai | May 2024 – July 2024

- Developed a novel deep learning model for plant leaf disease classification, integrating cross-vision transformers (ViT) and a custom CNN architecture with RSCA (Relative Spatial Context Aggregation), Coordinate Attention, Condensation Attention, and CycleGAN techniques.
- Achieved a significant performance improvement, raising accuracy from 86% to 97% compared to existing methods.
- Submitted a research paper detailing the proposed model and its effectiveness in enhancing image classification accuracy for plant leaf diseases.

AI Intern R Systems, Noida | Aug 2023 – Dec 2023

- Developed proficiency with the OpenAI API for natural language processing tasks.
 - Integrated SQL and LangChain for seamless interaction with SQL databases using natural language.
 - Created an SQL Query Generator leveraging the OpenAI API, enabling non-technical users to query databases via natural language instructions, processed by ChatGPT to generate SQL queries.
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Projects

Potato Leaf Disease Detection

- Implemented a deep learning model using Convolutional Neural Networks (CNN) for the detection of diseases in potato leaves.
- Utilized Node.js, Postman, and FastAPI for backend development and API integration.

Restaurant Review Indicator

- Applied Natural Language Processing (NLP) techniques to categorize restaurant reviews as positive or negative.

Image Text Detection

- Developed a Text detection model which could extract tables from images and save it into csv format using OpenCV and tesseract OCR
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Certifications

- **Machine Learning A-Z**
 - Comprehensive understanding of machine learning theories, algorithms, and coding libraries.
 - **AWS Cloud Practitioner**
 - Expertise in AWS cloud services for developing scalable and reliable solutions.
 - **MERN Full Stack Internship Program**
 - Gained proficiency in full stack development and collaborated in a team to build a functional web application.
 - **Technology Virtual Experience Program, Deloitte**
 - Completed tasks of coding, data analysis, and cybersecurity in a simulated professional environment.
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Skills

- **Programming Languages:** C++, Python, Java
- **Databases:** MySQL
- **Technologies:** Machine Learning, Deep Learning, FastAPI, OpenCV, tesseract OCR
- **Tools:** Postman, LangChain