Rohan Roy

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EDUCATION

Vellore Institute of Technology, Bhopal — 8.53 cgpa
Bachelor of Technology, Computer Science Core — *June 2021–June 2025*

Sacred Heart Children Senior Secondary School, Kota — 84.0%
Class Xll — *May 2021*

Delhi Public School, NTPC Farakka — 90.0%
Class X — *May 2019*

CERTIFICATION

NPTEL Cloud Computing | (Elite Certificate)
AWS Academy Graduate - AWS Academy Cloud Architecting | (AWS)

TECHNICAL SKILLS

Languages: C++, SQL, Python
Frameworks: Pandas, NumPy, Scikit-learn, Selenium
Developer Tools: Git, GitHub, Excel
Databases: MySQL, MongoDB

PROJECTS

PCB Component Detection | (Python, Ultralytics)
- Engineered an automated PCB inspection system to detect, classify, and compare 100+ components, enhancing defect detection, quality control, and reverse engineering for improved testing and manufacturing efficiency.
- Optimized Ultralytics on a custom PCB dataset using Google Colab and a T4 GPU, achieving a 92.5% mAP for high-precision object detection in real-time industrial applications.
- Achieved real-time detection and classification of PCB components with an inference speed of 15ms per instance, enabling seamless deployment in manufacturing environments.

Meat Quality Assessment and Classification | (Python , Scikit-learn, TensorFlow)
- Spearheaded and enforced validation protocols for image datasets of 500+ meat samples (chicken, fish, prawn), ensuring data integrity for model training.
- Evaluated models including Naive Bayes, KNN, SVM, Random Forest, CNN, ResNet, and DenseNet, with DenseNet achieving the highest accuracy of 96.2% in image classification.
- Attained real-time classification in under 0.3s per instance, ensuring scalability for industrial applications.

ThinkQuotient | (HTML, CSS, JavaScript, BootStrap)
- Revamped a psychometric testing platform with 200+ interview questions, improving candidate evaluation and increasing recruitment efficiency. Now utilized by over 300 job seekers monthly.
- Optimized platform responsiveness by enhancing load times and ensuring smooth interactions, resulting in a 97% Lighthouse performance score for speed and mobile compatibility across all devices and screen sizes.
- Logged 5,000+ test attempts, with an average user engagement time of 12 minutes per session.

WORK HISTORY

TechnoHacks Solutions Pvt Ltd | Machine Learning Intern
- Developed an automated error detection system that processed datasets weekly, identifying and correcting data discrepancies, saving 20 hours monthly in manual data checks.
- Pioneered a Linear Regression model to analyze Body Mass Index, workout days, and training intensity for 1,500+ athletes, using Mean Squared Error (MSE) for performance evaluation.

EXTRACURRICULAR AND ACHIEVEMENTS

- Accomplished Selenium 101 Python Certification with a 70% score with LambdaTest.
- Earned NPTEL Cloud Computing Certification with a 71% score and an Elite Certificate.
- Guided a team of 8 in developing web applications, resulting in increased engagement through workshops attended by 50+ participants exploring emerging technologies.