Eshan Ratnesh Srivastava

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Education

VELLORE INSTITUTE OF TECHNOLOGY Vellore, T.N.
B. Tech, CSE and Business Systems June 2025
Thesis:

- AI Models for Image Processing and Machine Learning: Involves models for Image Processing and Machine Learning, aimed at enhancing surveillance systems with advanced capabilities. Specifically, focused on creating imaging-based vehicle classification techniques for efficient traffic system monitoring.
- AI-Based Emotion Detection for Textual Data: developing systems capable of discerning emotions from text, enabling a deeper understanding of human sentiment and communication patterns.

Relevant Coursework:

- Programming Fundamentals
- Data Structures and Algorithms
- Artificial Intelligence
- Introduction to Business Management
- Business Communication and Value Sciences
- Financial Cost Accounting and Management
- Marketing Research and Management

BRIGHTLANDS SCHOOL
Dehradun, U.K.
High School May 2018

- Actively participated in various intra-school activities, honing teamwork, and leadership skills.
- Participated in the National Level Science Talent Search Examination, showcasing an enthusiasm for academic challenges and problem-solving.

Experience

OROM Vellore, T.N.
Backend Developer October 2021 – April 2022

- Developed and maintained backend code of web applications.
- Collaborated with a team of developers to design and implement efficient and scalable.
- Participated in code reviews and implemented feedback to improve code quality.
- Utilized version control tools for code management.
- Assisted in identifying and resolving technical issues and provided technical support as needed.
- Improved website speed and performance through code optimization and database indexing.

Defence Electronics Application Laboratory, DRDO Dehradun, U.K.
Project Intern November 2023 – January 2024

- Engineered a sophisticated data modeling and machine learning model to fortify the Intrusion Detection System.
- Spearheaded the resolution of a complex problem statement focusing on bolstering security measures within a designated zone.
- Developed and implemented a robust system ensuring the detection of potential intruders without flagging non-violating individuals.
- Managed a substantial dataset featuring unique identifiers, timestamped records, and coordinates, derived from individuals wearing Active RFID tags.

- Executed Spatial Violation Detection by establishing predefined restricted zone boundaries, flagging individuals surpassing limits for optimal security.
- Orchestrated Temporal Violation Detection by setting time thresholds, identifying potential intruders spending extended periods within restricted zones.
- Curated a comprehensive dataset exceeding 160,000 data points, utilizing RFID reader technology to capture individuals' locations.
- Achieved a remarkable model accuracy exceeding 82% upon successful completion of the project.

Leadership and Activities

Institution of Engineers(I) - VIT
Core Committee Member March 2022 – Present

- Conceptualized and planned events for IE(I)-VIT, ensuring seamless execution by coordinating with multiple teams and stakeholders.
- Oversaw logistics and resource management to ensure successful implementation of events during the technical fest 'Gravitas' and Tech. week 'Yantra.'
- Actively recruited members for the upcoming session, contributing to the continuity and growth of the organization.

Hindi Literary Association - VIT
Editorial Head August 2022 – March 2023

- Organized events during 'Riviera,' the Annual International Sports and Cultural Carnival, to promote Hindi literature and provide a platform for Hindi-speaking students to showcase their literary skills.
- Demonstrated expertise in content management, team coordination, editing and reviewing, publication scheduling, managing submissions, and ensuring adherence to content guidelines and policies.

Skills & Interests

Technical:

- C
- C++
- Python
- Java
- Machine learning
- R Language
- HTML
- CSS
- JavaScript
- PHP
- ReactJS
- SQL
- PLSQL
- Agile
- GitHub
- Figma
- Adobe Photoshop
- Jamovi
- Scikit-learn
- TensorFlow
- Keras
- Canva
- Tableau

Language:

- English - Full Professional Proficiency
- Hindi - Full Professional Proficiency
- Spanish - Elementary Proficiency

Projects: https://github.com/EshanRS

- **Personal Portfolio:** https://eshanrs.github.io/Portfolio/
  - ◊ Developed a comprehensive portfolio website highlighting projects and achievements in Computer Science, Machine Learning, and Web Development, showcasing technical proficiency and creative design skills.
  - ◊ Curated an innovative project collection on the website, offering a visual representation of capabilities and providing a comprehensive overview of expertise and achievements in the mentioned fields.

- **Stock Price Prediction Project: https://github.com/EshanRS/Stock-Price-Predictions**
    - ◊ Implemented a Stock Price Prediction system utilizing machine learning techniques to forecast future values of company stocks in the market, optimizing profit potential.
    - ◊ Engineered a predictive model for closing prices of Tata Motors, leveraging Long Short-Term Memory Network (LSTM) architecture. The model was trained on historical company data extracted from Yahoo Finance.
    - ◊ Achieved a Root Mean Square Error (RMSE) of 0.9894, demonstrating the model's accuracy in forecasting stock prices.
    - ◊ Utilized the Nadam activation function and an input size of images set at (60, 1) to enhance the efficiency and precision of the predictive model.

- **Machine Learning Project: https://github.com/EshanRS/Breast-Cancer-Wisconsin--Diagnostic-**
    - ◊ Developed a machine learning model leveraging the Decision Trees algorithm, achieving over 89% accuracy in predicting breast cancer occurrences using the Breast Cancer Wisconsin (Diagnostic) Dataset.
    - ◊ Identified key data measurements to enhance accurate diagnosis, contributing to early detection efforts and applying machine learning techniques to a critical health concern in the medical field.

Interests:

- **Finance and Economics:** Actively follow financial news and trends and enjoy studying economic principles to understand market dynamics and their impact on business development.
- **Stock Market:** Engage in research and analysis of stocks, exploring investment opportunities, and understanding the financial markets' behavior.
- **Gym and Fitness:** Passionate about maintaining a healthy lifestyle through regular gym workouts and staying physically active.
- **Quality Time with Friends and Family:** Value meaningful connections and enjoy spending quality time with loved ones, fostering strong relationships and teamwork skills.