

Shenbaga ganeshan S

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SUMMARY

Aspiring AI and Data Science student passionate about developing innovative solutions using machine learning, deep learning, and data analysis. Seeking opportunities to contribute to impactful projects and grow as a prompt engineer and data analyst.

EXPERIENCE

AI Developer Intern

Ramco Cements Ltd

July 2025 – July 2025, Ariyalur

- Built a PyQt5-based app for real-time bag counting across 16+ RTSP streams using YOLOv8 + BoT-SORT.
- Integrated Modbus TCP for real-time target monitoring and automatic logging.
- Deployed a consolidated dashboard to visualize real-time analytics and operational metrics from multiple factory endpoints, leveraging custom data pipelines for actionable insights.

Computer Vision Intern

Ramco Cements Ltd

June 2024 – September 2024, Alathiyur

- Developed YOLOv8-based model for detecting Aalathiyur labels on cement bags from RTSP video streams
- Integrated continuous inference pipelines using custom Python scripts to automate real-time label identification and reporting in high-throughput manufacturing environments.

Machine Learning Intern

Elysium Group of Companies

September 2023 – September 2023

- Built ML models for COVID-19 prediction with optimized feature engineering and data preprocessing.
- Engineered data pipelines for large-scale healthcare datasets by integrating automated cleansing and transformation processes to support predictive analytics projects.

PROJECT

Bag Counting

Ramco Cements Ltd • July 2025 – July 2025

AI-Based Cement Bag Counting System

Developed a real-time computer vision system using YOLOv8 segmentation for automatic cement bag detection and counting on conveyor belts. Integrated Modbus TCP for PLC signaling and deployed the solution using Docker with CUDA-accelerated inference.

Cement Bag Forecasting using Synthetic Data

For my own interest • July 2025 – July 2025

- Developed a machine learning pipeline to forecast cement bag loading patterns using synthetic time-series data. Built regression models, performed EDA, and visualized trends for predictive analysis.
- Engineered automated data preprocessing workflows and integrated advanced regression algorithms, accelerating predictive accuracy and enabling more effective resource allocation within supply chain operations.

Alert Drivers

Ramco Cements Ltd • July 2025 – July 2025

- Designed and developed a Flask-based web application to automate real-time driver alerts via SMS and voice calls using the SIM A7672S 4G LTE modem. Integrated a live SQL Server database to fetch and filter active driver records by material and status. Implemented serial communication using AT commands over UART to initiate calls and send SMS notifications through a 4G SIM card without smartphone dependency.

EDUCATION

Bachelor of Technology (B. Tech.)

Minor in Artificial Intelligence and Data Science • Ramco Institute of Technology • Rajapalayam • 2026 • 7.5

CERTIFICATIONS

Power BI

Microsoft • 2024

Ramco Intern

Ramco Cements • 2024

SKILLS

python, SQL-Database, HTML, Open CV