Sameer S Mansur

Bachelor of Engineering
Computer Science and Engineering
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Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech., CSE	KLE Technological University, Hubli	9.50 (upto 5th Semester)	Expected to Graduate in 2026
Pre-University Board	Vidya P. Hanchinmani PU College, Dharwad	95.83%	2020 - 2022
SSLC	Pavan English Medium School	93.44%	2020

Projects

- **Vision-Based Billing System** *Sept 2024 - Nov 2024*
  Tools: YOLOv11, Python
  - Designed a system to detect and separate product instances from a single image.
  - Integrated YOLOv11 for object detection and counting.
  - Automated bill generation based on detected product counts.
  - Achieved a mAP accuracy of 94.33% for thresholds [0.05, 0.95].
- **Post-Training Quantization of ResNet50 Trained in Federated Environment** *Oct 2024 - Dec 2024*
  Tools: PyTorch, Federated Learning (FLWR), Pytorch Post-Training Quantization API, hydra-core
  - Performed post-training quantization on a ResNet50 model trained in a federated environment.
  - Reduced model size by 74.36%, from 95.18 MB (Float32) to 24.31 MB (Int8).
  - Achieved only a minor accuracy drop from 81.16% to 80.26% (Top-5) while significantly optimizing efficiency.
  - Improved inference speed by 66.67%, reducing latency from 5.85 ms to 1.95 ms.
- **Exploratory Data Analysis on Thyroid Disease Prevalence** *Feb 2024 - June 2024*
  Tools: Python, Matplotlib, Seaborn, Pyplot, Gradient Boosting Classifier, SMOTE
  - Designed a preprocessing pipeline for data cleaning and balancing.
  - Integrated SMOTE to address class imbalance.
  - Analyzed hormone patterns and demographics to reveal trends.
  - Developed a Gradient Boosting model with 96.37% accuracy.

Skills

- **Programming Languages**: C , C++ , Python , Basic CSS/JS/HTML
- **Frameworks and Libraries**: PyTorch, NumPy, Pandas, Matplotlib, OpenCV, Scikit-Learn, Seaborn, Basic React
- **Tools**: Git, GitHub, Postman

Achievements

- Selected for **Smart India Hackathon (SIH)** 2024 - Internal Hackathon
- Successfully presented our paper **"Vision-Based Automated Billing System Using YOLO11: Integrating Object Detection and Product Bundling for Retail Optimization"** at the 3rd Congress on Control, Robotics, and Mechatronics (CRM2025), Warangal.