

AMBATI JAYA CHARAN

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EDUCATION

Kalasalingam Academy of Research and Education,

Bachelor of Technology in Computer Science and Engineering (**CGPA** – 8.01/10.0)

KrishnanKoil, Virudhunagar, India

2022 - present

Sri Sarada Junior College

Pre-University Course (**Percentage**: 79 %)

Vijayawada, India

2020 - 2022

SKILLS SUMMARY

- **Languages:** Python, SQL.
- **Frameworks:** FastAPI, Alembic, LLM's, LangChain, RAG, Flask, Hugging Face, Transformers, Selenium.
- **Tools:** Power BI, Excel, PowerPoint, Postgresql, Git, Github, Docker.
- **Areas of Interest:** Generative AI, building applications using Python & Web Technologies, Data structures and Algorithms.
- **Soft Skills:** Rapport Building, Strong Stakeholder management, People Management, Excellent communication.

WORK EXPREIENCE

AI Intern | Nyayatech

JULY 25 - Present

- Built an end-to-end automation system for court case and hearing management.
- Developed a FastAPI-based backend integrated with external APIs for real-time data updates.
- Automated data extraction and validation using Selenium and ETL logic for seamless syncing.
- Designed scalable PostgreSQL models with Alembic migrations for evolving business needs.
- Implemented intelligent PATCH notifications and ensured API compliance with robust error handling.
- Containerized and deployed the platform using Docker with environment-based configuration.

Research Student | Multicore Wave

Aug 23 - Dec 24

- Worked on creating an image dataset, collecting and annotating 50,000+ images using LabelStudio.
- Performed data preprocessing to enhance model performance.
- Gained hands-on experience with ROS2 and SLAM, completing robotic mapping and localization crash courses.

PROJECTS

LawGPT | [LINK](#)

April-2025

- Built an AI-powered legal assistant leveraging **Google Gemini 1.5 Flash** for real-time, context-aware legal research and conversational support.
- Developed an interactive chat UI that provides accurate, AI-driven answers to legal queries based on updated legal data.
- Designed for law students, researchers, and professionals to simplify complex legal topics and access statutes and case law efficiently.
- **Technologies Used:** Python, LangChain, Google Gemini 1.5 Flash , AWS Hosting,React.

ID and Formal Dress Detection| [LINK](#)

MAY-2025

- Developed a computer vision-based compliance monitoring system using **YOLOv12** for real-time ID card detection and **Google Cloud Vision API** for formal dress code verification.
- Implemented automated violation capture with image saving and **email alerts** including zipped evidence for efficient monitoring.
- Built a React-based web interface for live violation visualization and monitoring.
- **Technologies Used:** Python, OpenCV, YOLOv12 (Ultralytics), Google Cloud Vision API, SMTP Email Automation.

Natural Language to SQL Query App | [LINK](#)

MAY-2025

- Developed a Streamlit-based web application that translates natural language queries into executable **MySQL SQL queries** using **LangChain** and **Google Gemini LLM..**
- Enabled users to interact with a MySQL database without writing SQL, supporting dynamic query generation, execution, and result visualization.
- **Technologies Used:** Python, Streamlit, LangChain, Google Gemini, MySQL, SQLAlchemy, PyMySQL.

ACHIEVEMENTS & CERTIFICATES

2nd Place Winner – The ComBattle Ideathon (IEEE ComSoc KARE)

March 2025

- Recognized for innovative problem-solving and technical excellence, securing 2nd place and a cash prize in this competitive ideation event.

POSITION OF RESPONSIBILITY

Open Source Framework Lead| KARE Open-Source Society (KARE – OSS)

JULY2024 - JUNE2025

- Leading open-source development and fostering tech community collaboration.