Programming Languages

- **Python** – AI/ML pipelines, LLM integration, API development

- **HTML5, CSS -** Basics

- **SQL (Basic/Intermediate)** – Data querying & handling CSV datasets

AI / Machine Learning / LLM Tech

Large Language Models

- **Google Gemini API** (chatbot, MCQ generation, recommendations)

- **Whisper (OpenAI)** – STT for long audio

- **M2M100, NLLB, OPUS-MT, IndicTrans** (HuggingFace multilingual translation)

- **Custom NLP pipelines** (cleaning, translation, summarization, MCQ generation)

Computer Vision

- **YOLOv8** – Training, inference, dataset cleaning, blockage detection

- **OpenCV** (basic preprocessing)

Machine Learning Skills

- Text generation, summarization, classification

- Speech-to-text pipelines

- Translation models

- Evaluation of multiple models (BLEU/accuracy comparison)

Cloud & APIs

- **Google Cloud Platform**

  o Speech-to-Text v1p1beta1

  o Translation API v3

  o Cloud Storage (audio processing)

  o OAuth credentials management (credentials.json)

- **HuggingFace Transformers & Model Hub**

- **Web automation / Google API (autotype automation)**

Frameworks

Backend

- **Flask**

  o API development

  o Authentication (OTP, login/signup)

  o File upload systems

  o SSE (Server Sent Events) for real-time progress

  o Admin panels and CSV-based DBs

Frontend / Dashboard

- **Streamlit**

  o Multi-page apps

  o Login/signup systems

  o Chatbot UI

  o Voice input UI

  o Admin appointment dashboards

  o AI MCQ generator UI

Tools & Libraries

Audio Processing & Automation

- **FFmpeg** – audio conversion for ASR

- **YT-DLP** – YouTube audio extraction

- **Pydub** – audio duration extraction, format handling

- **Subprocess, threading** – background jobs, long-running tasks

- **SSE (EventStream)** – live job tracking

Data Handling

- **Pandas** – CSV reading, doctor data, appointment data

- **PyPDF2, pdfplumber** – extracting hospital info from PDF

- **json, pathlib, OS utilities**

Authentication & Security

- **bcrypt** – password hashing

- **PyOTP** – email OTP verification

- **dotenv** – API key management

Databases & Storage

- **MongoDB Atlas** – login/signup, user profiles

- **CSV-based data storage** – doctor dataset, appointments, users

- **Local file storage** – job folders, audio files, output transcripts

Core Skill Areas

- AI/LLM App Development (Gemini, Whisper, HuggingFace)

- Speech-to-Text + YouTube long audio transcription

- Multilingual NLP (Tamil, Telugu, Hindi → English)

- Flask & Streamlit full-stack development

- Cloud-based AI App Deployment (GCP)

- Computer Vision with YOLOv8

- Authentication systems (OTP, password hashing, sessions)

- Audio processing (FFmpeg, Pydub, YT-DLP)

- Admin dashboards & chatbot systems

RECENTLY PROJECTS I HAVE WORKED ON :

AI Multilingual Speech-to-Text & Translation System (Flask + GCP + Whisper)

A full end-to-end system that:

- Converts long audio & YouTube videos into text

- Supports Tamil, Telugu, Hindi, English

- Uses Google Cloud Speech-to-Text

- Uses Google Cloud Translation API

- Uses Whisper, M2M100, NLLB, OPUS-MT models

- Real-time progress tracking (SSE)

- Background processing with threading

- Converts audio with FFmpeg

- Downloads YouTube audio with YT-DLP

- Exports transcript as a downloadable txt file

- FRONTEND: HTML/CSS + JavaScript

- BACKEND: Flask API

Apollo Hospital Chatbot

A complete Streamlit-based application with:

- Login & Signup with user authentication

- MongoDB database

- AI-powered chatbot using Google Gemini

- Multilingual input (Telugu/Hindi/English)

- Voice input using SpeechRecognition + PyAudio

- Doctor information from CSV

- Hospital info from PDF (PyPDF2)

- Appointment booking & email confirmation

- Admin panel to view/export/delete appointments

- Floating chatbot UI

- Dynamic pages (About, Contact, Home)

AI MCQ Generator Platform

A full AI-powered MCQ generator with:

- Google Gemini LLM

- Automatic MCQ generation from text

- Automatic answer evaluation

- Explanation generation

- Role-based access (Admin / Student)

- Download/export MCQs

- Beautiful Streamlit UI

- Multi-subject support

- Secure environment variables (.env)

YOLO Drainage Blockage Detection

A computer vision project with:

- YOLOv8 training

- Custom dataset for blockage detection

- Preprocessing large unstructured folders

- Training & validation (mAP, precision, recall)

- Inference testing

- Folder automation scripts for dataset cleaning

Google Autotype Automation Tool

A Python automation project using:

- Google API / Google Sheets API

- OAuth (credentials.json file)

- Automatically extracts data

- Auto-types or auto-fills data

- Automates repetitive tasks

- Handles updating and extraction scripts

Data Extraction & Website Automation System (Selenium + Tesseract)

An automated data extraction & form-filling system with:

- Screen data capture & OCR using Tesseract

- Selenium WebDriver for automating website interactions

- Automatic form filling using extracted text

- Gemini API to understand, clean, or reformat extracted content

- Browser automation (Chrome WebDriver)

- Image preprocessing for better OCR accuracy

- Real-time automation logs in terminal

Resume Optimizer Using Job Description

An AI tool to rewrite resumes based on JD with:

- Google Gemini LLM for optimization
- JD vs Resume comparison
- Missing skill detection & keyword enhancement
- Auto-generation of ATS-friendly summary & bullet points
- Clean Streamlit UI form for input
- Secure API key handling using .env
- Output download as text/PDF (optional)

How I Am Helpful as a Mentor in the Training Institute

• I simplify AI and Data Analytics concepts and teach with real industry examples.

• I have strong practical knowledge in AI, LLMs, NLP, RAG, APIs, and automation.

• I previously worked as an AI & ML mentor for 3 months, guiding students in projects.

• I help students build real-world, AI-enhanced projects that improve their portfolios.

• I support students in doubt clarification, hands-on practice, and interview preparation.

• I motivate and guide slow learners with simple step-by-step explanations.

• I bring ideas to improve the institute using AI tools (chatbots, automation, MCQ generators).

• I help the institute update course modules with modern AI topics to stay competitive.

• I contribute to better student outcomes and higher placement readiness.

How I Am Helpful to Vangrove Software Company

• I have worked on multiple real AI projects, so I can bring fresh ideas and practical solutions to the company.

• I can automate repetitive tasks using AI, reducing manual work and improving team productivity.

• I have strong knowledge of LLMs, NLP, RAG, APIs, automation, and full-stack AI development.

• I can design and develop AI-based internal tools (chatbots, document automation, data extraction, voice-to-text systems, etc.).

• I can improve existing workflows by integrating AI-driven automation and smart assistants.

• I can contribute to building innovative client projects with advanced AI features.

• I can help the team adopt the latest AI models and best practices to stay ahead in the market.

• I can support data extraction, automation, API integration, and rapid AI prototyping for new ideas.

• I bring problem-solving ability and experience across speech-to-text, computer vision, NLP, and automation projects.

• I help the company deliver smarter, faster, and more competitive solutions to clients.