Venu R

Software & System Engineer | AI Enthusiast | Full Stack Developer

A versatile Computer Science graduate with experience across software development, system administration, networking, and AI-driven applications. Adept at adapting to diverse technical challenges and delivering practical solutions. Committed to continuous learning and contributing to innovative projects.

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EDUCATION

SSLC
VANA VANI MATRICULATION HIGHER SECONDARY SCHOOL

2017 - 2018 *IIT MADRAS*

PERCENTAGE
- 82

HSC
VANA VANI MATRICULATION HIGHER SECONDARY SCHOOL

2019 - 2020 *IIT MADRAS*

PERCENTAGE
- 66

B.E COMPUTER SCIENCE
K.C.G COLLEGE OF TECHNOLOGY

2020 - 2024 *CHENNAI*

CGPA
- 8.25

WORK EXPERIENCE

Computer Vision Intern
YOCO Labs

02/2024 - 05/2024 *CHENNAI*

YOCO Labs is An AI based Video Analytics Software Company based in Chennai, India and founded in 2021.

Achievements/Tasks
- Developed a web application using React and python which can stream "n" number of cameras and can provide inference using YOLOv8 model.
- Custom AI model Training for specific use cases.
- Fine tuning machine learning algorithms.
- Optimizing IP camera streams in local network.
- Classifying and Annotating large number of datasets.
- Testing inference in real world scenarios.

Server administrator Intern
SPR Systems

06/2024 - 08/2024 *CHENNAI*

A private IT and Network Consultancy Firm based in chennai, India

Achievements/Tasks
- Maintained debian server for the client.
- Enabled https protection for the website.
- Troubleshooting and creating cronjobs for automatic ssl certificate renewal.

LANGUAGES

TAMIL
Full Professional Proficiency

ENGLISH
Full Professional Proficiency

INTERESTS

Networks | AI | VLSI | Quantum computing | Piano

SKILLS

NETWORKING | LINUX SYSTEM ADMINISTRATION | SHELL SCRIPT | PYTHON | MQTT | REACT | AI/ML | COMPUTER VISION | IOT | C Programming

CERTIFICATES

RED HAT SYSTEM ADMINSTRATION (07/2017)
RHEL 7

CCNAv7: INTRODUCTION TO NETWORKS (12/2023)
CISCO

FUNDAMENTALS OF CONTAINERS, KUBERNETES AND OPENSHIFT (02/2025)
RedHat

PYTHON FOR DATASCIENCE (08/2023)
NPTEL

FULL STACK DEVELOPMENT (03/2023)
Infosys SpringBoard

PRINCIPLES OF MANAGEMENT (08/2023)
Great Learning

PROJECTS

github.com/VenuR0071

Transformer model based logical inference system
- Developed a framework to improve deductive reasoning using LogiTorch to train a T5-based soft reasoning transformer model, integrated with BERT for MCQ generation, enhancing logical conclusions.

VisionGrid
- A comprehensive web application for for real-time IP camera streaming and management, utilizing YOLO-based inference for object detection. It supports ROI drawing on video streams, with backend integration for advanced detection and analytics, optimized for dynamic environments. The app is built with React and Flask, ensuring seamless user experience and efficient video processing.

BMI Digital signage Kiosk
- The BMI kiosk uses ESP32 microcontrollers with load cells and ultrasonic sensors for weight and height, communicating via MQTT to a Raspberry Pi. It features facial recognition with OpenCV/DLIB, voice input via Google Speech API, and a Python backend with MongoDB. Digital signage is powered by a VPS-hosted content system.

Low bandwidth tracking system using MQTT
- A low-bandwidth tracking system uses an ESP32 with GPS, sending data via MQTT over a VPN to a broker. A mobile app subscribes to the broker for real-time location updates, ensuring secure, efficient tracking.

Traveling companion app using CHATGPT
- A traveling companion app using ChatGPT in React Native offers real-time assistance and personalized recommendations for users during their travels. It leverages AI to provide guidance, answer queries, and enhance the travel experience.

Bluetooth signal interception using chrome
- A website using Chrome can capture Bluetooth signals by utilizing the Web Bluetooth API to intercept signals from devices like the MI scale. This allows the website to receive and process data transmitted via Bluetooth from compatible devices.

Web hosting using Raspberry pi
- Web hosting on a Raspberry Pi involves running a web server (e.g., Apache or Nginx) and configuring port forwarding on the router to expose the Pi's local IP to a public IP, enabling external access to the hosted website.