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Social links :

www.linkedin.com/in/herman-singh-umrao
https://github.com/hermanumrao
https://www.instagram.com/cosmos_of_herman/

Skills :

C	c++	git	bash
Makefile	Python3	Linux	OpenCv
Pytorch	libtorch	Rust	Big-Data tools
Platform-architecture			Risc-5
Markdown		Artifial-Inteligence	
Neural-Networks	Deep-learning		CNN

Tools :

Gcc	g++	alacrity	ssh	docker
Git	btop	Astro-nvim		Ubuntu
Arch-linux		sublime	Intel-simics	
neofetch		vs-code	clang-d	
Raspberry-Pi		Ardiono	excallidraw	

Herman Singh Umrao

Bengaluru, Karnataka, India

Intern in tech Mahindra cerium | CIE-research intern on Intel simics | PESU-CSE(AI&ML)-26' | founder and Club-head of "Linux Legion"

I'm a developer who's made coding a way of life. I'm passionate about diving into new tech and integrating it into my projects, pushing boundaries with every line of code. Constantly learning, constantly building—that's my mantra. I believe in the power of code to turn ideas into reality, and I'm always on the lookout for the next challenge that will help me grow and innovate.

Experience :

Intern
Tech Mahindra Cerium Pvt Ltd
Jun 2024 - Jul 2024 · 2 mos

worked on a project ("AI based human emotion detection") and successfully demonstrated it working.

Research Intern
Center for Innovation and Entrepreneurship @ PES University
Jan 2024 - May 2024 · 5 mos

I worked on Intel Simics, a full-system simulator for chipsets, where I gained valuable knowledge of Intel CISC and RISC-V motherboard architectures. My task involved understanding the tool and identifying potential applications.

Teaching Assistant
PES University
Aug 2023 - Dec 2023 · 5 mos

I was working under some really great teachers (Nagegowda K S, Dr. Jayashree) in the SOC Design and Computer Architecture Dept, I made AV summaries for students which was put up on the official website of PES University.

Founder & Club Head
LinuxLegion
Jan 2024 – Present · 8 mos

I worked with my friends to create a club along with them to start and nurture a healthy community of Linux-systems and open-source enthusiasts. Here, we hosted workshops which helped people understand why Linux is Linux .We tried to create and nurture a healthy community of Linux-systems and open-source enthusiasts.

Tech MentorTech Mentor
The Embrione
Pes University

Technical domain
The Alcoding Club
Pes University

Education :

PES University
Bachelor of Technology:
Computer-Science (AI & ML)
Sep 2022 - Sep 2026Sep 2022

HAL Public School
SSLC and PUC:
Physics, Computer, Maths, Chemistry, English

Projects Domains :

Computer-Vision, Neural-netorks, Machine-Learning, IOT, Microcomputers, etc.

Projects :

Emotion Detection:

I worked on detecting human emotions using a raspberry pi 3 .I used face landmarks to write an AI based human emotion recognition. The final model was able to discover emotions like happy, sad , laughing, and surprised.

Tech used:

Dlib, CPP, python, mediapipe, Pytorch, tensorflow,etc

Sentence completion (NLP):

Used Markov chains to perform sentence completion.

I wrote the whole thing from scratch in cpp.

Hadoop Docker:

This was a collaborative project with a friend to setup multiple big data tools like kafka, hadoop, spark, hive, PostgreSQL, flume, hbase, yarn, pig, sqoop etc,

All these tools were setup in a single docker image and made available to all.

Neural Network (still working):

I understood how neural networks work so I am trying to write a simple scalable neural network from scratch in cpp. I am trying my best to make it as scalable as possible. I wish to write it up like a library so that it can be used in future for simple neural network implementations.

Face Detection:

Used tensorflow to build a simple face detection model from scratch.

OpenCv projects:

I have used opencv-cpp and opencv-python to build some simple projects like face detection, document scanner, camera based whiteboard etc.

PyTorch-cpp (libtorch) XOR perception:

I built a simple XOR perception neural network after understanding how to use libtorch.