ARNAV JOSHUA FERNANDES

+91 8296759003 ◇ Bengaluru
arnavfernandes@gmail.com ◇ linkedin.com/in/arnavfernandes ◇ cv.arjf.dev ◇ github.com/ajdjyt

EDUCATION

Bachelor of Technology, SRM University 2022 - 2026

SKILLS

DevOps	Kubernetes, Docker, Ansible, Jenkins, Terraform
ML	PyTorch, LLMs, Transformers, DC-GANs
General	Linux, Git, VMWare, Proxmox, Bash, SpringBoot
Languages	Python, Java, Go, C++

EXPERIENCE

Research Fellow Jan 2024 - May 2024
HyperVerge *Remote*

- Developed a suite of Transformer models for liveliness verification that streamlined workflows, enabling a **1,000+** queries per day while reducing operational costs by **20%**.
- Applied mathematical algorithms to the data, improving model performance by **23%**.
- Developed a Realtime **Region of Interest** pipeline for facial feature extraction using **MediaPipe** which improved model training times by **27%**.

Research Lab Jan 2023 - Present
Next Tech Lab *Chennai*

- Mentored and lectured over **10** members in concepts such as Transformers and Linux.
- A student led. internationally recognized research lab, honored with the prestigious QS Award.
- Participated in OpenHack 2024. Implementing the **ELK** stack for the **RAG** database for our model.

PROJECTS

Facial Region of Interest extraction. Built a tool to detect faces and generate masked images with the required Region of Interest. (Github)

- Used the **Mediapipe** library to get a mesh to extract a Regions of Interest mesh and mask from the given images.
- Implemented generator functions that streamlined data processing, reducing runtimes by **40%**, resulting in faster response rates for real-time applications.

EDA Applied Exploratory Data Analysis on the given dataset using folium and matplotlib to create graphs and a heatmap.

- Found big conclusions pertaining to the dataset, which led to a **35%** accuracy increase.
- Used follium to generate **Heatmaps** of the dataset based on location data.
- Created **Graphs** which showcase the how skewed the data is, using **matplotlib**.

Chatbot-Room. Developed a **Spring Boot** Java application to serve and deploy LLMs, and let users connect to the same conversation with **websockets**. (Github)

- Used **Springboot** to create a backend.
- Deployed **LLMs** using **FastAPI** to create a reliable API endpoint.
- Used **websockets** to allow multiple users to connect to the same conversation.