

ARSHVIR

Tanda, Punjab | +91 7528953747 | arshvir882@gmail.com | [LinkedIn \(linkedin.com/in/arshvir-995a91203\)](https://www.linkedin.com/in/arshvir-995a91203/) | [GitHub \(github.com/avarshvir\)](https://github.com/avarshvir) | [Portfolio Site](#)

Skills

Programming Languages: C, C++, Python

Databases: MySQL, Vector Databases (ChromaDB)

AI/Machine Learning: Scikit-Learn, TensorFlow, PyTorch, NLP, YOLO, Transformers, Diffusion Models, RAG

Software Engineering: DSA, Object Oriented Programming, Git, GitHub, Linux, Software Development

Applied AI & Tools: Streamlit, Gradio, OpenCV, Flask, Ollama (Local LLM Inference), Web Scraping, Google Colab, Render

Professional Experience

Coder Roots

Mohali, India

AI and ML Internship

Jan 2025 – Jun 2025

- Worked on computer vision, NLP, and multimodal AI systems using TensorFlow, PyTorch, OpenCV, and YOLO.
- Built a multimodal text-to-static-video generation pipeline using Stable Diffusion, BLIP, and gTTS.
- Gained hands-on experience in model training, inference optimization, and system integration.
- Completed structured industry-oriented training and project-based learning, applying AI/ML concepts to real-world use cases.

Education

Sardar Beant Singh State University

Gurdaspur, India

B. Tech in Computer Science and Engineering

2021 – 2025

CGPA: 8.22

Govt. Sen. Sec. School

Tanda, Punjab

12th Non. Medical - 87 %

2021

Projects

PPE Object Detection System [\[Link\]](#)

- Developed a deep learning-based PPE object detection system to automatically identify safety equipment (Helmet, Vest, Gloves, Boots) in industrial environments.
- Fine-tuned a pretrained YOLOv8 model using transfer learning on a custom Roboflow dataset and trained it on Google Colab.
- Evaluated model performance using IoU-based metrics including Precision (89%), Recall (89%), mAP@50 (91%), and mAP@50-95.
- Built an AI-powered web application using Gradio and OpenCV for image and real-time camera-based PPE compliance detection.

Fission AI (Multimodal Generative AI System) [\[Link\]](#)

- Built a multimodal generative AI platform supporting text-to-image, text-to-video, text-to-text, and text-to-deep-research functionalities.
- Integrated Stable Diffusion for image generation and BLIP for image captioning, followed by narrated video creation by stitching generated images and adding speech using gTTS.
- Implemented Local LLMs (Gemma via Ollama) for privacy-preserving text generation and summarization.
- Designed an intelligent research agent that extracts keywords, performs web searches via DuckDuckGo API, and generates reports.
- Developed a Streamlit frontend connected to a Colab backend via ngrok, demonstrating end-to-end system integration.

Visio AI (Machine Learning and Data Science Platform) [\[Link\]](#)

- Developed an end-to-end ML and data science platform enabling dataset upload, automated data cleaning, EDA, and visualization for supervised and unsupervised learning workflows.
- Implemented training pipelines for regression, classification, and clustering algorithms, with intelligent algorithm suggestions based on target variables.
- Enabled model export functionality allowing users to download trained models for reuse in external applications.
- Integrated OpenRouter API for visual LLM to find hidden patterns of images, extending platform capabilities beyond tabular data.
- Built a no-code, user-friendly interface using Streamlit, enabling non-technical users to perform end to end ML workflows.

Gita-Py – Python NLP Utility Library [\[GitHub\]](#) | [\[PyPI\]](#)

- Developed and published a lightweight Python library to programmatically access Bhagavad Gita summaries, verses, and quotes.
- Designed clean utility functions for fetching specific verses, chapter summaries, and validating input programmatically.
- Packaged and distributed the library via PyPI, enabling installation using “pip install gita-py”.
- Built for integration into educational, spiritual, or NLP-based applications requiring structured textual data.
- Demonstrated proficiency in Python packaging, API design, documentation, and open-source distribution.

Certificates

- AI/ML for Geodata Analysis, ISRO-IIRS (Aug 2024)
- Machine Learning Training, Internshala (July 2024)