

# Atharwa Vatsyayan

Vellore, Tamil Nadu, IN | atharward@gmail.com | +91 7320980466 | LinkedIn | GitHub | Portfolio Website

## Education

**Vellore Institute of Technology (VIT)**, Vellore, India  
B.Tech in Computer Science & Engineering

Sept 2022 – Jun 2026

## Experience

**Trihegona | Data Analyst Intern**

May 12, 2025 – July 05, 2025

- Analyzed **15+ project and client datasets** using **Python** and **SQL** to track **delivery timelines** and **turnaround metrics**.
- Built **EDA pipelines** on **5k+ records** to identify trends in **revisions**, **scheduling delays**, and **resource utilization**.
- Designed **4+ dashboards** and **visual reports** to communicate insights to **designers** and **leadership teams**.
- Supported **pricing and effort estimation** by analyzing historical data from **20+ creative projects** across **CGI**, **motion design**, and **AR/VR** services.

## Research

**Defect Analysis in Machine Components (ISRO Collaboration)**

Ongoing

Supervisors: Dr. Samreen, Dr. Margret Anuncia S.

- Conceived a **ResNet50-based computer vision pipeline** achieving **94% accuracy**.
- Reduced **false positives** by **40%** via **targeted data augmentation**.
- Formalized **reproducible training workflows**, cutting **iteration cycles** by **35%**.

## Projects

🔗 **Agnitra : Ecozone-Aware AutoML Wildfire System** | Automated Machine Learning

- Ecozone-aware spatial **AutoML** wildfire prediction system for modelling micro-climatic regions.
- Dual-task hybrid model with **Deep Learning**, classical and tree models, with Optuna-based hyperparameter tuning.
- SHAP** explainability, **GIS** risk maps, and deployable inference pipeline for operational use.

🔗 **Deepfake Detection** | TensorFlow, Flask | Demo

- Real-time deep fake video detection extension with 93 percent accuracy for webpages.
- Created Chrome extension for Deepfake Detection with TensorFlow (CNN) and Flask integration.

🔗 **Gesture-Controlled Virtual Mouse and Finger Air Writing** | Computer Vision and Deep Learning

- Developed a real-time **gesture interaction system** enabling hands-free cursor movement, clicking, and drawing.
- Designed fingertip-tracking pipelines using **MediaPipe**, **PyAutoGUI** to detect gestures and map them to UI actions.
- Air-writing functionality with character prediction, clear/backspace, save, and mode-switching; enhancing accessibility and interaction.

🔗 **Achievo! — Unleash Your Productivity** | MERN | Demo

- Developed productivity platform aimed at maximizing user efficiency through scientific techniques like **Eisenhower**, **1-3-5 rule**, etc.

## Skills

- Programming Languages:** Python, Java, C/C++, Go, R
- Web Technologies:** HTML, CSS, JavaScript, React, Redux, TypeScript, Node.js
- AI & Data:** Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Data Science, MySQL
- Tools & Platforms:** Linux, Git/GitHub, Google Colab, VS Code, Canva, Figma, Spring Boot
- Coursework:** OOP, DBMS, DSA, Operating Systems
- Soft Skills:** Communication, Leadership, Teamwork, Collaboration

## Certifications

**Introduction to AI** — University of Helsinki

**Introduction to Generative AI** — Google Cloud

## Other Experience

**Senior Core Member — IEEE SSIT**

2023 – Present

- Coordinated **ethics-focused initiatives** with **10+ peers**.

**Captain — School Basketball Team**

2019 – 2021

Led a **12-player squad** in inter-school competitions, improving **team performance** through **disciplined training**.