

# Atharwa Vatsyayan

Vellore, Tamil Nadu, IN | atharwared@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

### Trihegional | 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 Anouncia 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

### Q 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.

### Q 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.

### Q 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.

### Q 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.