# Atharva Atterkar



Final-year Computer Science & Engineering (AI) Undergraduate

## WORK EXPERIENCE

#### AI Software Development Intern

Jun 2024 - Dec 2024

Eduplus Campus, Pune

Worked on a **sponsored** project focused on student attention detection using advanced technologies.

### COMMUNITY

#### Associate Finance Head

Jun 2023 - May 2024

Geeks for Geeks VIIT, Pune

Managed club finances and secured 5+ major sponsors for our flagship event, GeekVishwa (gfgviit.tech).

# PROJECTS

#### Student Classroom Attention Detection Using Image Processing and EEG Signals

(C) Github

- Developed a real-time attention monitoring system that tracks student focus using image processing techniques and EEG signal analysis.
- Implemented CNN-based facial emotion detection in conjunction with a Flask web application for realtime image processing.
- Utilized Mindlink EEG headband sensor to capture and analyze student attention levels, integrating this data for enhanced accuracy and insights.

#### Mental Health Chatbot using RAG, LangChain, and AstraDB

- Built an AI-powered mental health chatbot using a RAG pipeline with LangChain and Groq LLMs for empathetic, context-aware responses.
- Integrated AstraDB using Cassio, and embedded data using HuggingFace sentence-transformers.

#### Enhanced Driver Safety System Using Machine Learning

(C) Github

- Developed a system to detect driver drowsiness to improve road safety using Inception V3 and VGG16 models.
- Used machine learning techniques to analyze eye states and alert the driver during periods of drowsiness.

#### Superstore Sales Analysis Dashboard using Power BI

• Provided interactive insights into sales performance, product trends, and customer segmentation.

#### EDUCATION

2022 - 2026 B.Tech Computer Science & Engineering (AI)

Vishwakarma Institute Of Information Technology, Pune

2020 - 2022**Higher Secondary Schooling** 

The Jain International School, Aurangabad

# SKILLS

**Programming Languages** Python, SQL, Java

Machine Learning Regression, Classification, Ensembles, Tuning, Scikit-learn Deep Learning & CV Tools TensorFlow, PyTorch, YOLO, CNN, OpenCV, NumPy, Pandas LLM & GenAI Tools LangChain, HuggingFace, Groq API, Lamini, LoRA, QLoRA

Vector Databases FAISS, ChromaDB, AstraDB Cloud/Data Platforms AWS (S3, IAM), Snowflake, Azure

Frontend Technologies HTML, CSS, JavaScript **Backend Technologies** Flask, MongoDB

Soft Skills Analytical Thinking, Problem-solving, Teamwork

# ACHIEVEMENTS

- Winner of the Hack-Sphere 24hrs Hackathon, organized by Firmway, for solving the problem statement Intelligent Partial Invoice Matching.
- Honored with **Best Paper Award** for Drowsy Driver Detection System at **IEEE ICBDS 2024** Conference.
- Published Cureus Journal article: "Student Classroom Attention System Using AI and Sensors."