

# Kunal Wagh

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## EDUCATION

**B.Tech Computer Science and Engineering with specialization in Data Science**  
MGM's Jawaharlal Nehru Engineering College

August 2021 – 2025  
8.87/10 CGPA (till 6<sup>th</sup> semester)

**Higher Secondary Education -12th HSC Board**  
Vidhyadham college of Science, Aurangabad

August 2019 – 2021  
93 percentage

**Secondary Education -10th ICSE Board**  
Podar International School ICSE

August 2018 – 2019  
88 percentage

## KEY SKILLS

**Languages:** Python, C, Arduino C, Java(OOP), SQL, HTML/CSS/PHP/JS, React JS, C#

**Tools and Libraries:** Langchain, Open CV, TensorFlow/Keras, NumPy, Pandas, Tkinter, Matplotlib, Scikit-learn, Arduino IDE, Unity, MySQL, Python-Django, Vite, Android studio/Flutter(Basics)

**Technical:** GenAI, RAG's, Machine Learning, Deep Learning, Statistics, IOT, Data Structures, Competitive programming, GitHub

## INTERNSHIP EXPERIENCE

**AI/ML Developer, YUG-E-VISUALS(Remote)**

July 2024 – Present

**GenAI Intern, Cognizant Digital Solutions(Onsite)**

June 2024 – July 2024

- ❖ Developed a voice assistant tool for a Flexible Production System (FPS) using Python, LLM, and RAGs
- ❖ Developed a Streamlit GUI enabling PDF upload for contextual information retrieval, and integrated a prompt-based querying system with LLM for real-time assistance.
- ❖ **Skills acquired:** GenAI, LLM's, RAG's, Langchain, Ollama, Streamlit, Prompt-based querying.

**AI/ML Trainee, Versatile Technology(Onsite)**

August 2023 – October 2023

- ❖ Delivered two groundbreaking projects in chatbot development and attendance management systems using face recognition, both powered by Python and Machine learning.
- ❖ **Skills acquired:** Machine Learning, Data preprocessing, Python, Analysis, Optimization, Problem solving.

## PROJECT EXPERIENCE

**GenAI RAG-Based Voice Assistant (Cognizant)**

- ❖ Developed a voice assistant for FPS(Flexible Production System) using **GenAI** and **RAG** techniques, integrating **LLMs(Mistral7b)** for dynamic, context-aware responses. Utilized **Chroma** and **Ollama** for managing embeddings.
- ❖ **Built a Streamlit GUI** for document uploads and contextual information retrieval, with backend Python functionalities.
- ❖ **Skills acquired:** **GenAI, RAG**, LLM's, Langchain, **Streamlit**, Python, Chromadb, Ollama, Prompt-based querying.

**Lung Capacity Enhancing Game Prototype and Website**

- ❖ Developed an Arduino-based prototype to **enhance lung capacity**, using **Arduino C** Programming and Hardware Integration, with a **ReactJS** frontend for data recording and real-time graphs via **Google Charts**.
- ❖ Implemented backend with **Python Django Rest Framework** and enabled device connection through **Google Chrome Bluetooth API**, gathering feedback from over **150** participants.
- ❖ **Skills acquired:** **IOT, ReactJS, Python-Django** Rest Framework, Arduino C Programming, **Hardware Integration**, Hardware designing, **Healthcare Research**.

**VR Game development in Unity using GC plugin (Funded project)**

- ❖ Developed a VR game for pulmonary rehabilitation in kids, programming Arduino C for wireless interaction with Bluetooth and pressure sensors to improve breathing efficiency in children.
- ❖ **Skills acquired:** Arduino C programming, Unity Game Development, C#, **Hardware-Software Integration**, Virtual Reality (VR), Project Management, Teamwork.

### Devnagiri Sign Language Recognition

- ❖ Collected approximately 1000 images data from sample size of 21 people.
- ❖ Implemented **Google Mediapipe** to generate hand coordinates, applied **LSTM/CNN/RandomForest** and **Inception V3(CNN)** model to predict sign gestures. Acquired an accuracy of **+95%** on CNN model.
- ❖ **Skills acquired:** **Python, Machine Learning**, Deep Learning Data Collection/Labelling, **Image Processing**, Augmentation

### Natural Language Vendor Assistant(Versatile Technology)

- ❖ Built an AI chatbot and used the preprocessed data to train **NER model** coded in **Python** using **Keras** and **TensorFlow**. Employed **NLP** techniques for dynamic conversations.
- ❖ Collected and preprocessed data from **80** people using Google Forms, employing tokenization and **lemmatization/stemming** techniques.
- ❖ **Skills acquired:** **Python** Programming, TensorFlow/Keras, Chatbot Development, Model training, Manual Testing, **Data collection** and Preprocessing.

### Face Recognition Attendance Tracker(Versatile Technology)

- ❖ Augmented and labeled data from 50 people, employed OpenCV for image processing and Tkinter for GUI development, demonstrating expertise in **Machine Learning and CNN**.
- ❖ Implemented **SQL** for database management, ensuring seamless data storage and retrieval.
- ❖ **Skills acquired:** Machine Learning, **Image processing**, Computer Vision, **CNN**, Python **Face-Recognition**, **Open-CV**, **Tkinter**, SQL, GUI development, Data Base Management.

### Twitter Sentiment Analysis for Depression Detection

- ❖ **Skills acquired:** **Python-NRCLex** Library, Machine Learning-**K-Nearest Neighbor**, **Logistic Regression**, **Neural Network**, Seaborn, Data Analysis, Data cleaning.

### Green Building Model

### Attendance Prediction and Tracking App (Android Studio)

## **VOLUNTEER EXPERIENCE**

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- **Geeks for Geeks Chapter (GFG)** – MGMU (June 2024-present): **Chairperson**, MGMU GFG student chapter
- **National Service Scheme (NSS)** – JNEC (August 2021-present): Student **Head Coordinator** of Social Service programs
- **Training and Placement Cell** – MGMU (June 2023-present): Active member of training and placement

## **HONORS/AWARDS**

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- Secured place in top **100 among 50,000+** teams globally in **Google Solutions Challenge2024** .
- Winner of **“Cognizant Digital Nurture Technoverse2023”** hackathon amongst **54** teams and **216** participants.
- Secured second place amongst **120 teams** in the Young Indians Innovation (YII IDS3 CII), earning a prestigious **Rs 100,000** cash prize for the project **Lung Capacity Enhancer**.
- Conducted/Managed a comprehensive C programming workshop attended by over **150+ second-year** college students.
- Achieved the Grandmaster title in SIP Abacus, secured 1st Runner-up at the National Abacus Championship (Bangalore) amongst **1500 competitors**.
- Represented MGM university at inter-university **National Level Badminton**.