

Komal Saraf

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EDUCATION:

Bachelor of Technology (B.Tech.) - Computer Science
Vellore Institute of Technology (B.TECH CSE Core)
Cumulative GPA - 7.47

Sep 2022 - June 2026

High School Diploma
Mahadevi Birla Shishu Vihar
ISC – 74%

Apr 2019 - Jun 2022

Welland Goulsmit School
ICSC – 86%

SKILLS:

- **Languages:** Python, Java, C++, SQL.
- **Core Competencies:** Problem-solving, Data Structures and Algorithms, Object-oriented Programming, Machine learning (TensorFlow, PyTorch, Scikit, Matplotlib, NumPy, Pandas), Computer Vision (OpenCV, Pytorch), CI/CD Pipelines, Data Engineering, Data Visualization, Data Analytics, Prompt Engineering.
- **Tools:** Tableau, PowerBI, MS Office(Word, Excel, PowerPoint), Canva, MySQL
- Soft skills: Analytic skills, teamwork, verbal and written communication, collaborative, leadership.

PROJECTS:

- **Sign language Detection** (Machine Learning) July 2025-Sept 2025
 - Developed a system for real-time sign-to-text conversion, enhancing communication accessibility for the hearing-impaired.
 - Achieved 90%+ accuracy in gesture recognition using CNN-based models, YOLO for object detection, and OpenCV for pose estimation.
 - Deployed optimized ML models with TensorFlow Lite for on-device inference, enabling low-latency with integrated live camera feed processing and dynamic UI rendering within the Android framework.
 - Skills Used: TensorFlow Lite, YOLO, OpenCV, CNN, Android Studio, Java, ML Model Optimization
- **Heart disease Detection** (Machine Learning) Jan 2025- May 2025
 - Developed a healthcare system designed for early heart disease detection, providing predictions based on a patient's physical and medical characteristics.
 - Integrated and optimized various machine learning algorithms (e.g., Logistic Regression, Support Vector Machines, Random Forest) to enhance prediction accuracy and efficiency.
 - Achieved a prediction accuracy of more than 85% by analyzing 1000+ dataset entries, demonstrating robust performance in identifying potential heart disease cases from input data.
 - Skills Used: Python, Scikit-learn, Pandas, NumPy, Matplotlib, Jupyter Notebook, ML Model Evaluation.
- **Desktop Assistant** Aug 2024 – Oct 2024
 - Created a highly responsive, voice-enabled Desktop Assistant automating daily tasks, leading to an estimated 20% increase in user productivity achieved by seamlessly integrating Python libraries (SpeechRecognition, pyttsx3) for voice-to-text conversion and developing a GUI (Tkinter) with interactive modules for streamlined control over assistant functionalities.

CO-CURRICULARS:

- C++ gold badge , Hackerrank
- Python gold badge , Hackerrank
- Completed 15 Skill badges in Google Cloud Skill Boost.
- Supervised machine learning, Stanford University, Coursera
- A certified course on Generative AI by IBM.
- Member, AI Club, VIT Bhopal 2022 – Coordinated and organized multiple events, workshops, and functions within the AI Club, contributing to community building, knowledge sharing, and enhancing student participation in Artificial Intelligence initiatives