Komal Saraf

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EDUCATION:

Bachelor of Technology (B.Tech.) - Computer Science *Sep 2022 - June 2026*
VIT Bhopal University (B.TECH CSE Core)
Cumulative GPA - 7.47

High School Diploma *Apr 2019 - Jun 2022*
Mahadevi Birla Shishu Vihar
ISC – 74%

Welland Goulsmith School
ICSC – 86%

SKILLS:

- **Languages**: Python, Java, C++, MySQL.
- **Core Competencies**: Problem-solving, Data Structures and Algorithms, Object-oriented Programming, Artificial Intelligence, Machine learning (TensorFlow, PyTorch, Scikit- Learn, Matplotlib, NumPy, Pandas), Data Visualization, Data analytics, CI/CD Pipelines, Generative AI, LLMs, Prompt Engineering.
- **Soft skills**: Analytic skills, teamwork, verbal and written communication, 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
- A certified course on Generative AI by IBM
- Completed 15 Skill badges in Google Cloud Skill Boost.
- Supervised Machine Learning, Stanford University, Coursera
- 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.