# BALNE SAI VIGNESH

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## Objective

Aspiring AI/ML Engineer with a strong foundation in computer science and a passion for developing intelligent systems. Seeking opportunities in companies to leverage my skills in AI, machine learning and software development.

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## Education

**Bachelor of Technology: CSE - AIML**      **2022 - 2026 (Present)**      **CGPA: 8.07**
Sreenidhi Institute of Science and Technology

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## Skills

- **Programming Languages:** Python, SQL, C, Java, C++, Kotlin
- **AI, Machine Learning and Deep Learning:** TensorFlow, OpenCV, Scikit-Learn, Keras, CNNs, GANs
- **Web Development:** HTML, CSS, JavaScript, Streamlit, Flask
- **Tools, Platforms and Deployment:** Visual Studio Code, GitHub, Android Studio, MySQL, Streamlit Cloud, Netlify
- **Soft Skills:** Problem-Solving, Communication, Time Management, Critical Thinking, Strategy Planning

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## Projects

- **SignBridge – Real-time Sign Language Recognition**
  - Developed a real-time sign language recognition system using OpenCV, TensorFlow, and MediaPipe.
  - Implemented a Streamlit app for live hand detection and translation.
  - Supports multiple Indian languages and real-time speech synthesis using gTTS.
  - Achieved **high accuracy** by training on a custom datasets with over 600 images per label.
- **Ayurbot – Prakriti Analysis Using AI**
  - Built a Streamlit based web application for Ayurveda-based Prakriti analysis.
  - Uses machine learning models to classify and suggest Ayurveda remedies.
  - Deployed the model on **Streamlit Cloud** for easy accessibility.
- **Object Detection and Face Detection Model – Water Bottles, Chairs, Tablets**
  - Created an object and face detection model trained to identify faces and water bottles, chairs, etc.
  - Leveraged transfer learning with MobileNetV2 as a feature extractor, combined with data augmentation.
  - Achieved **high detection accuracy** in test datasets.

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## Certifications

- **SQL -** (Basic - Advanced) - **HackerRank**
- **AI Tools and ChatGPT -** (Certificate of Completion) - **be10X**

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## Virtual Internships

- **AI/ML -  AICTE EDUSKILLS**
  - Developed AI models for predictive analytics and computer vision applications.
  - Improved object detection model accuracy by **20%** through hyper parameter tuning.
  - Implemented ML pipelines using **TensorFlow and PyTorch**.
- **Android Developer Intern - AICTE EDUSKILLS**
  - Gained experience in Android app development using Kotlin.
  - Built responsive mobile applications with mordern UI/UX principles.

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## Achievements & Extracurriculars

- **Bronze Award, INEX 2023** – Developed a website which has **Chatbot** which identifies prakriti and **gives medical advice** to maintain health.
- **Publishing Research Paper** on my Project **AI-Integrated Real-Time Sign Language Recognition: SIGN BRIDGE**
- **Active Open-Source Contributor** – Contributed to AI and ML repositories on GitHub.