Sanket Adsare

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Pune | Portfolio | LinkedIn | GitHub

Summary

I am a Full-Stack Developer with expertise in CPP,Python, React, and deep learning, specializing in scalable web applications and AI-driven solutions. Proficient in building real-time, user-centric systems and optimizing machine learning models for high accuracy. Adept at leveraging modern frameworks and embedded systems to deliver innovative, efficient solutions in collaborative environments.

Education

Graduation CGPA: 8.17 – *Pune Vidyarthi Griha's College of Engineering, SPPU* 2022 – 2026

12th Grade (HSC): 75% – *Residential Junior College, Ahilyanagar* 2020 – 2022

10th Grade (SSC): 94% – *New English School, Parner* 2020

Technical Skills

- **Languages:** C++, Python, JavaScript, SQL
- **Web Development:** React, Next.js, HTML, Bootstrap
- **AI/ML Tools:** TensorFlow, Keras, NumPy, Pandas, OpenCV, DeepFace
- **Embedded Systems:** Raspberry Pi, ESP32, Arduino IDE, SolidWorks, YOLO
- **Tools:** Git, GitHub, VS Code, Flask, MongoDB

Experience

Brain Tumor Detection Research Intern (IIT Bombay) *March 2025*

- Developed a deep learning model using Xception architecture, achieving 99.2% accuracy in classifying brain MRI images into four tumor types.
- Applied advanced image preprocessing and data augmentation to enhance model robustness and performance.
- Deployed model with Gradio for real-time predictions, streamlining end-to-end dataset preparation and user interaction.

Research and Design Intern (OpenDroids Robotics Startup USA) *Jan 2025*

- Designed robot components using SolidWorks and implemented computer vision with YOLO for innovative robotics solutions.
- Configured Raspberry Pi for control systems and sensor interfacing, optimizing automation and real-time processing.

Projects

Facial Recognition Attendance System *ongoing 2025*

- Developed a full-stack system for automated attendance using facial recognition, featuring a responsive admin dashboard with real-time analytics and data visualization.
- Implemented secure role-based authentication and automated reporting, ensuring efficient user management and scalability.
- Tools: Next.js, React, TypeScript, Flask, MongoDB, OpenCV, DeepFace

EzChange *Jan 2025*

- Built a platform to exchange used books and materials among college students, promoting sustainability and reducing bookstore brokerage.
- Designed responsive front-end pages using React, contributing creative UI/UX ideas to enhance user engagement and navigation.
- Tools: Next.js, Node.js, PostgressSQL, TailwindCSS

Handwritten Digit Recognition *2024*

- Built a CNN-based model to classify MNIST handwritten digits with 97.2% accuracy, optimizing through hyperparameter tuning.
- Evaluated model performance using precision, recall, and F1 score, ensuring robust and reliable predictions.
- Tools: TensorFlow, Keras, NumPy, Pandas

Automatic Gate Opening System *2024*

- Created a secure gate access system using ESP32-CAM and QR code verification against a pre-stored database for authorized access.
- Enhanced security with real-time QR code scanning, ensuring seamless operation and user authentication.
- Tools: ESP32, Arduino IDE

Certifications

- Deep Learning (NVIDIA Deep Learning Institute)
- MATLAB (MathWorks)