Aditya Pandey

+91 6204418876 | asadityasonu@gmail.com | linkedin.com/in/asadityasonu/ | github.com/AsAdityaSonu

EDUCATION

Thapar Institute of Engineering Technology   Patiala, India
Bachelor of Engineering, Computer Science Engineering, CGPA-8.95   *2018 – 2021*

Himalayan White House International College
Science, Percentage 94.5%   *2022 – 2026*

EXPERIENCE

ELC Summer Internships   June 2024 – Present
Thapar Institute of Engineering Technology   *Patiala, India*

- Developed Parking Scan, a vision-based parking guidance system utilizing image analysis for parking slot detection and classification.
- Implemented a ResNet34 deep classifier to accurately determine parking slot occupancy and detect available slots.
- Evaluated the system on publicly available PKLot dataset and a manually created dataset, achieving high efficiency and robustness.

Web Developer   Nov. 2023 – Dec. 2023
Bharat Intern   *India*

- Developed a web app for real-time weather data retrieval using the OpenWeatherMap API.
- Developed a portfolio website featuring project displays, resume, and contact info, optimized for all devices.

PROJECTS

Parking Scan | *Custom Tkinter, Tkinter, Python*   July 2024 – July 2024

- Provides a simple, intuitive interface with easy login and real-time visualization of parking lot statuses.
- Utilizes advanced image-based analysis for detecting and classifying parking slots, offering a cost-effective alternative to traditional sensor-based systems.

Sweat Set | *JavaScript, React, MongoDB, p5.js, ml5.js, Mongoose*   Mar. 2024 – May 2024

- Utilizes ml5.js and p5.js for computer vision-based body movement detection, offering accurate and real-time tracking of physical exercises.
- Integrates with the MERN stack to deliver customized workout plans and health metrics, enhancing user engagement and fitness optimization.

Virtual Mouse | *OpenCV, pyautogui, MediaPipe*   Mar. 2024 – May 2024

- Detects hand landmarks, determines finger positions, and calculates distances within video frames for gesture recognition.
- Utilizes hand gestures to control the cursor and perform clicks via PyAutoGUI, with cursor movement triggered by open fingers and clicks by pinching gestures.

2048 Game | *JavaScript, HTML/CSS, Git*   Feb. 2024 – Feb. 2024

- A single-player puzzle game where you combine numbered tiles on a 4x4 grid to reach 2048.

RESEARCH PAPER

Prediction of Cervical Cancer with Machine Learning Approaches   June 2024 – Present

- Evaluated various machine learning models, including SVM, Decision Trees, Random Forests, Gradient Boosting Machines, Logistic Regression, and KNN.
- Utilized image preprocessing and data augmentation techniques to improve model performance.
- Employed ensemble methods like Voting Classifier to combine multiple models for enhanced predictive accuracy.

TECHNICAL SKILLS

Languages: C/C++, Python, JavaScript, SQL, MongoDB, HTML/CSS

Frameworks: React, Node.js, WordPress, Express, Next.js

Developer Tools: Git, Docker

Libraries: pandas, NumPy, Matplotlib, Tkinter, MediaPipe, OpenCV, p5.js, ml5.js, pyautogui