Harsh Pahwa

📞 +91-8630950002   ✉ harshpahwa74@gmail.com   in Linkedin   Github   Codeforces   LeetCode

Education

Indian Institute of Technology, Mandi   **2021 - Present**
B.Tech - Computer Science and Engineering   CGPA: 8.14

Experience

SDE Intern | Kisanlink   **Dec 2023 - April 2024**
- Launched 2 new websites, including a MERN stack e-commerce site, and optimized the main website for improved performance, all hosted on AWS.
- Enhanced the company's admin panel by implementing performance optimizations and adding a farmland assessment feature, which facilitated improved product recommendations and increased sales by 15%.
- Technology Stack: React, Node.js, Express, MongoDB, AWS, Wordpress, Tailwind, Exotel.

Research Intern | Indian Institute of Technology, Mandi   **Jun 2023**
- Worked on an assistive solution for speech and hearing challenged people.
- Implemented an Indian English speech-to-text program in Python using pre-trained Vosk models achieving a word error rate of less than 5%.
- Deployed the speech-to-text model and the gesture-to-text model on RaspberryPi 4B to create a portable device that could enable conversations between speech and hearing impaired individuals and individuals without these impairments.
- Technology Stack: Python, Tensorflow, Vosk, Google Mediapipe

Frontend Developer Intern | Mazinda   **Sept 2022 - Nov 2022**
- Developed multiple user interfaces, enhancing company's web applications in terms of usability and visual design.
- Collaborated with a team of 4 developers and 2 designers to engineer and launch over 15 responsive web pages, improving user engagement and accessibility.
- Technology Stack: HTML5, CSS3, JavaScript.

Projects

HEAL ↗ | Python, Tensorflow, HTML5, CSS3, Javascript, Flask
- Developed a disease diagnosis website using deep learning to assist doctors.
- Detected brain tumor from MRI scans, pneumonia from chest X-rays and predicted stroke risk, early diabetes risk with 90% accuracy.

Complaint Management System ↗ | MongoDB, Node.js, Express.js, Passport.js, HTML5, CSS3, JavaScript, Nodemailer
- Designed a comprehensive Complaint Management System for students, featuring user registration, complaint submission, and status tracking.
- Incorporated real-time updates and email notifications via Nodemailer, enhancing user engagement and administrative efficiency.
- Created an admin interface that significantly streamlined complaint resolution processes, leading to a 50% reduction in average resolution time.

Soil Sense ↗ | Python, Flask, CNN, Image Processing, HTML5, CSS3, JavaScript
- Implemented a soil classification system leveraging CNN and advanced image processing to analyze and classify soil types from images with 90% accuracy.
- Crafted a user-friendly frontend using HTML5, CSS3, and JavaScript, integrated with a Python Flask backend, enhancing user interaction and system responsiveness.

Achievements

- Secured 2nd position in FrostHack, a competetive inter-college hackathon with the project HEAL.
- Achieved max rating of **1547 (specialist)** on Codeforces.

Relevant Coursework

- **Computer Science:** Data Structures and Algorithms, Formal Language and Automata Theory, Operating System, Computer Networking, Computer Architecture and Organisation, Web Development, System Practicum
- **Database Management**
- **Data Science:** Probability and Statistics, Data Handling and Visualization, Machine Learning, Deep Learning

Technical Skills

Languages: C++, Python, Javascript, HTML5, CSS3, MySQL

Libraries/Technologies/Frameworks: C++ STL, Tensorflow, PyTorch, Flask, scikit-learn, matplotlib, API integration, Web Development, Linux, Wordpress

Tools: Git, Docker, Jupyter, Excel, AWS

Positions of Responsibility

- **Core Team Member Student Media Body**
- **Core Team Member of Web Development team of Techfest**