Yamini Masand

+91 84473 02805 | yamini.masand2004@gmail.com | linkedin.com/in/yamini | github.com/yamini

Education

VIT Bhopal University — Bhopal, India
Bachelor of Technology, Computer Science (AI/ML) - CGPA: 9.0 — *Sep 2022 – Present*

Fr. Agnel School — Noida, India
Grade XII - Physics, Chemistry, Maths, Computer Science — *Apr 2018 – Jun 2022*

Experience

Indian Institute of Technology, Delhi — Dec 2024 – Present
Junior Research Fellow — *Delhi, India*

- Improved functionality of engineering-focused software tools by leveraging innovative techniques from **OpenCASCADE** and **FreeCAD**; streamlined processes saved an average of 6 hours per project iteration weekly.
- Extracted and processed features from STEP files for creating 3D models and conducting engineering analysis.
- Utilized **OpenCASCADE** to implement parametric modeling techniques for **CAD system improvements**.
- Coordinated with engineering teams to develop automation protocols for feature extraction; enhanced overall efficiency of design workflows while improving completion speed on key projects by an average of three days.

Coforge Ltd. — Sep 2024 – Dec 2024
Machine Learning Intern — *Noida, India*

- Designed and implemented Python-based web scraping tools to extract, clean, and aggregate structured data for enhancing machine learning workflows.
- Engineered an intelligent chatbot specifically for the university environment using **Retrieval-Augmented Generation** techniques; analyzed user engagement metrics, fielding over 1,500 inquiries monthly with increased accuracy in responses.
- Fine-tuned language models using **Hugging Face** libraries and optimized similarity computation techniques to improve chat bot response times and relevance.

Technical Skills

Languages: Python, C/C++, Java, SQL, HTML, CSS, JavaScript.
Frameworks: TailwindCSS, Bootstrap
Developer Tools: Git, Google Cloud Platform, AWS, VS Code, PyCharm, IntelliJ, Tableau, Excel, MATLAB.
Libraries: pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow, Hugging Face PyTorch, Keras, OpenCV, OpenCascade, BeautifulSoup.

Projects

Plant Disease Detection | *Python, Deep Learning, Streamlit* — Mar 2024 – May 2024

- Developed a real-time plant disease detection model with an accuracy of 85% using a CNN-based architecture.
- Integrated the model into a Streamlit app, allowing users to upload images of plants for disease detection.
- Used transfer learning from pre-trained models (ResNet50) to optimize performance, reducing training time by 20%.
- Implemented a chatbot in the app, providing disease diagnosis information and recommended treatment, which increased user engagement by 30%.

Drowsiness Detection System | *Machine Learning, Computer Vision, OpenCV* — Aug 2023 – Sep 2023

- Developed a real-time drowsiness detection system using facial landmark analysis to monitor driver alertness.
- Achieved an accuracy of 93% for detecting yawning and closed eyes using YOLOv5, validated on a diverse dataset.
- Organized system robustness in low-light environments by optimizing detection algorithms and preprocessing techniques.

Honors and Achievements

- Established a robust Research and Development framework while serving as **lead** for the Android Club at VIT Bhopal.
- Facilitated interactive workshops and speaker sessions for a group of 100+ students, immersing participants in machine learning fundamentals by applying learned theories to tangible projects with proven results.