PURNIMA SAHOO

Bhopal, Madhya Pradesh

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Education

VIT Bhopal University **2022 − 2026**
Bachelor's in Computer Science and Engineering (B.Tech) *CGPA : 8.44*

Technical Skills

Programming Languages: C/C++, Python, JavaScript, HTML, CSS
Web Development & Development Tools: React.js, Streamlit, Flask, Tailwind CSS, Framer Motion, GSAP, Vanta.js, Three.js, Git, GitHub, Docker, Figma, Canva, Jupyter Notebook
Generative AI & LLMs: HuggingFace Transformers, LangChain, Gemini, LLama, PaLM2, Fine-Tuning Techniques, Retrieval-Augmented Generation (RAG)
Deep Learning: Computer Vision, PyTorch, TensorFlow, Keras, OpenCV
Machine Learning: Scikit-Learn, Feature Engineering, Model Evaluation, Sentiment Analysis, Generative AI (GenAI), Hugging Face Transformers
Software Engineering: Data Structure and Algorithms, Object-Oriented Programming, Database Management Systems

Leadership

Linux Club **Feb 2024 − Nov 2024**
Research and Development Lead *VIT Bhopal University*

- Analyzed social media data, increasing the club's visibility by 10%.
- Managed a team of 4+ members, improving research scope and quality by 5%.
- Conducted deep research on data trends, audience behavior, and engagement patterns.

Cyber Warrior Club **July 2023 − June 2024**
Research and Development Lead (Formerly Core Member) *VIT Bhopal University*

- Led a research initiative with a 7-member team, promoting collaboration and clear communication.
- Introduced streamlined workflows and consistent progress evaluations, enhancing team efficiency by 4% and ensuring timely, high-quality deliverables.

Projects (github.com/Purnima2004)

SkillCraft | *ReactJS, Tailwind CSS, HuggingFace Transformers, GenAI*   *https://course-craft-front.vercel.app/*

- Designed an adaptive learning platform powered by LLM-based content generation using HuggingFace Transformers for dynamic response creation, improved efficiency by 10%.
- Enhanced web application performance by integrating JavaScript and Vite, reducing load times and boosting responsiveness by 10%.

Auto ML Solution | *Python, Joblib, Pillow, Seaborn, Streamlit*   *https://automl-solution-production.up.railway.app/*

- Built an automated machine learning pipeline that evaluated multiple machine learning algorithms at 90% accuracy.
- Tested the pipeline on 10+ real-world datasets and deployed the solution using Streamlit, enabling an interactive web interface with real-time predictions and a user-friendly experience.
- Explored expansion with LLM-generated access logs summaries and alert messages as a future enhancement feature.

FaceKey | *Python, HTML, CSS, Javascript, Git, Flask, PostgreSQL*   *https://github.com/Purnima2004/FaceKey*

- Engineered a facial recognition model using OpenCV and dlib, leveraging advanced computer vision techniques to streamline user authentication. This innovation improved login efficiency by 40%.
- Integrated a blink detection mechanism using Eye Aspect Ratio (EAR), a robust computer vision technique, to prevent spoofing attacks such as photo or video-based impersonation, enhancing system security and performance by 30%.

Achievements

- **Smart India Hackathon 2023:** Qualified after excelling through three internal rounds among 500+ participants.
- **Amdocs Graduate Gen AI Hackathon 2024:** Qualified through the Programming rounds upto the Prototype Submission Rounds among a national pool of participants for innovative GenAI solution.
- **Coding and Programming:** Achieved a 1500 rating on competitive coding platforms, recognized as a Top Performer in the "Introduction to C++" course by Coding Ninjas with a 94% score (2023).
- **NPTEL Swayam (IIT Kharagpur):** Earned an Elite Silver badge in Cloud Computing with a 75% score, ranking in the top 5% of 20,000+ participants.
- **IBM AI Engineering Specialization (Coursera):** Achieved an overall score of 88.02% in this industry-recognized certification.
- **Google Software Engineer Interview Shortlist:** Selected for interview by Google for the Software Engineer role after successfully clearing the Online Assessment (September 2024).