

HERBERT GEORGE

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EXPERIENCE

Wood N Beyond – Web Technologies Freelancer

woodnbeyond.in

- Designed and deployed a ReactJS website, improving online visibility and engagement by 40%, while coordinating with client stakeholders.
- Implemented optimized frontend workflows, reducing load times and improving user retention.

EDUCATION

Vellore Institute of Technology, AP, India

2022 – Present

Bachelor of Technology in Computer Science and Engineering
Specialization in Artificial Intelligence and Machine Learning

The Indian School Bahrain

2022

(Physics, Chemistry, Maths, Computer Science)

PROJECTS

Reinforcement Learning for Genome Editing (*Python, PyTorch, DQN/PPO*)

- Designed a reinforcement-learning framework (DQN/PPO) by modeling DNA sequences as dynamic environments.
- Achieved 92% edit accuracy, 18% reduction in off-target errors, and 50% faster convergence compared to heuristic baselines.
- Engineered mutation simulation pipelines, state-action representations, reward functions, and alignment-based evaluation metrics.
- Trained RL agents to perform codon-aware nucleotide-level corrections.

Medical Imaging Analysis – Brain Tumor Detection (*Python, TensorFlow, ResNet50, OpenCV*)

- Built a hybrid ResNet50-based CNN with advanced augmentations (elastic transforms, CLAHE) and a confidence-based ensemble to reduce false positives.
- Achieved 92% accuracy and 0.87 F1-score with Grad-CAM visualizations for interpretability.

MFIDS – Multi-Faceted Intruder Detection System (*Python, OpenCV, YOLO, JavaScript, HTML, CSS*)

- Developed a security platform using face detection and object recognition.
- Implemented camera-linked monitoring with real-time alerts and anomaly detection.

CheemsBot – Discord AI Bot (*Python, Discord.py, Spotify API, SQLite*)

- Developed automated moderation and music playback bot using Discord and Spotify APIs.
- Increased server engagement by 60% through custom commands and anti-spam filters.

CERTIFICATIONS

- Advanced Learning Algorithms – Stanford Online & DeepLearning.AI (2025)
- Supervised Machine Learning – Stanford Online & DeepLearning.AI (2025)
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional
- Python for AI – Boston Training Academy

TECHNICAL SKILLS

Programming Languages Python, Java, SQL, HTML, CSS, JavaScript

Frameworks FastAPI, TensorFlow, PyTorch, Scikit-learn, ReactJS

Tools Git, VS Code, Jupyter Notebook, OpenCV, Hugging Face Transformers