Vanshaj Awasthi

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SUMMARY

Innovative Computer Science student at Amity University Mumbai with expertise in artificial intelligence and machine learning, specializing in machine learning applications and solutions. Proficient in Python, JavaScript, C, C++, and modern frameworks such as Next.js and React.js. Accomplished in leading teams to national-level hackathon success, publishing impactful AI and ML research, and driving curriculum innovation as GDG AI/ML Lead. Experienced in deploying scalable web applications on AWS, building responsive user interfaces, and optimizing machine learning models to solve real-world challenges. Renowned for technical leadership, collaboration, and delivering meaningful impact in dynamic tech environments.

EDUCATION

Bachelor of Technology - BTech, Computer Science • 9.36 (Minor in Business Management)
Amity University Mumbai • Panvel , Mumbai • July 2022 - April 2026

Higher Secondary Education - Physics, Chemistry, Mathematics • 86%
Ambika Prasa Public School (C.B.S.E.) • Kanpur, Uttar Pradesh • 2019 - 2021

EXPERIENCE

Full Stack Software Developer (Part Time)

Evonix Technologies Pvt. Ltd. (June 2024 - Present), Pune, Maharashtra, India · Hybrid
Skills: OpenAI API integration, Natural Language Processing, Embeddings Creation, PostgreSQL Database Management, AWS Deployment and Scalability, Real-Time Data Handling, Chatbot Architecture, API Design and Implementation

Artificial Intelligence and Machine Learning Lead

Google Developers Group September 2024 - Present, Mumbai, Maharashtra, India · On-site
Spearheaded AI/ML initiatives, developed industry-aligned curricula, led research projects, organized workshops and hackathons, mentored students, and integrated Azure into the curriculum, boosting project engagement by 40% in six months while fostering academic-industry collaboration and innovation.

Software Developer (Intern)

Cufront Healthcare Technologies Pvt Ltd May 2024 - November 2024, Pune, Maharashtra, India · Hybrid
Skills: Python (Programming Language) · ComputerAided Design (CAD) · Software Design

PROJECTS & PUBLICATIONS

Hybrid RBC Morphology Analysis and Multimodal Diagnostic Framework for β-Thalassemia Using SEBlock-CBAM Enhanced MobileNetV2, TabNetClassifier with Optuna Optimization, Logarithmic Transformation, and SMOTE-ENN Resampling
May 2025 - July 2025
Engineered a novel hybrid diagnostic framework combining SEBlock-CBAM Enhanced MobileNetV2 and TabNetClassifier, achieving a 95% accuracy in β-Thalassemia diagnosis, utilizing Optuna for hyperparameter optimization, and enhancing minority class detection with Logarithmic Transformation and SMOTE-ENN resampling techniques.

Neuro-Oncology Reimagined: Tailored Prognosis for Brain Tumors Using Adaptive Machine Learning
August 2024 - January 2025
The model incorporates attention mechanisms and uses saliency maps to improve feature extraction and interpretability by allowing clinicians to visualize the important regions along which their predictions are generated.

Hybrid 3D CNN and ResNet Deep Transfer Learning for High-Resolution Hippocampal Atrophy Mapping and Automated Alzheimer's MRI Diagnosis | Engineering, Technology & Applied Science Research
June 2024 - August 2024
The proposed framework integrates 3D U-Net-based hippocampal segmentation with multi-scale feature extraction and deep residual learning, enabling a precise atrophy quantification and robust classification across the AD stages. A standardized preprocessing pipeline, incorporating NIfTI conversion, spatial normalization, denoising, and contrast enhancement, ensures consistency across multi-site datasets. The model was optimized using AdamW, Cyclical Learning Rate (CLR), and early stopping, achieving 97.31% classification accuracy and a 92.84% Dice Similarity Coefficient (DSC) for hippocampal segmentation.

Analysis and Impact of Electromagnetic Field Leakage in WPT on Central Nervous System: A Neural Network Approach
May 2024 - October 2024
This study explores the possible effects of EMF leakage from WPT systems on the central nervous system (CNS) and suggests a distinctive approach that employs the applications for neural networks. Using real- world data and computational models, this study will produce an accurate model of EMF absorption and propagation in biological tissues, with a specific focus on the central nervous system.

CERTIFICATIONS

Machine Learning Specialization
DeepLearning.AI, Stanford University • 2025

AWS Cloud Technical Essentials
Amazon Web Services (AWS) • 2024

SKILLS

Machine Learning, Deep Learning, Natural Language Processing,Python, Java, C, C++, HTML, CSS, Data Structures and Algorithms, React.js,, Supabase, RESTful API Design, Chatbot Development, Amazon Web Services (AWS), AWS Lambda, AWS CWI, AWS CLI, AWS Identity and Access Management (AWS IAM), , Project Leadership, Workshop Facilitation, Research Collaboration, Team Management