



AMITY
UNIVERSITY

January-2026

INNOVATIONS @ Amity Centre for Artificial Intelligence

Building a smarter world with Artificial Intelligence.



**AMITY CENTRE FOR
ARTIFICIAL
INTELLIGENCE**

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DR. ATUL CHAUHAN

Chancellor, Amity University
President, Ritnand Balved Education Foundation
CEO, AKC Group of Companies



PROF. (DR.) BALVINDER SHUKLA

Vice Chancellor
Amity University Uttar Pradesh



DR. W. SELVAMURTHY

President, Amity Science, Technology and Innovation Foundation (ASTIF), Director General, Amity Directorate of Science and Innovation (ADSI), Chancellor, Amity University, Chhattisgarh



Welcome to the 4th Edition of our Newsletter Magazine.

It gives me great pleasure to welcome you to the Amity Centre for Artificial Intelligence (ACAI), a hub committed to advancing knowledge, fostering innovation, and driving excellence in Artificial Intelligence. Our goal at ACAI is to nurture future-ready AI professionals, innovators, and scholars by offering cutting-edge education, high-performance computational resources, and an environment that promotes cross-disciplinary engagement.

Equipped with state-of-the-art NVIDIA DGX-2 A100 GPU servers providing nearly 10 petaFLOPS of computing power, and guided by a committed faculty of leading experts, ACAI is pushing the frontiers of AI research and training. We take pride in being among the first in India to launch a comprehensive undergraduate program in Generative AI, LLMs, Multimodal AI. Our students have distinguished themselves—earning accolades in national competitions, excelling at hackathons, and contributing to impactful research publications.

The Amity Centre for Artificial Intelligence is driving AI integration across Amity University by embedding AI learning and applications into diverse academic programs rather than treating AI as a standalone discipline. Through courses and hands-on exposure in Machine Learning, Deep Learning, Generative AI, Large Language Models (LLMs), and Multimodal AI, students from engineering, sciences, healthcare, management, and other domains gain the ability to apply AI within their own fields. This integration ensures that AI becomes a problem-solving tool tailored to each discipline hereby preparing students to be domain experts empowered by AI.

With a strong foundation in research, infrastructure, and interdisciplinary learning, ACAI stands poised to power the next wave of intelligent and sustainable innovation.



PROF. M.K.DUTTA

Additional Pro-Vice Chancellor
Director, Amity Centre for Artificial Intelligence (ACAI)
Amity University, Noida.

ACAI-LAB - INFRASTRUCTURE

NVIDIA DGX-2 A100 Machines @10 peta-Flop Computing

This Centre aims to provide industry-oriented, advanced courses, multi-disciplinary research works, and hands-on training in the fields of **Deep Learning, Machine Learning, Computer Vision, Generative AI**, and other latest AI technologies for the industry.



Key features and benefits:

- ❖ Advanced DGX-2 A100 GPU Supercomputing Facility delivering world-class high-performance computing for cutting-edge AI research and innovation.
- ❖ Powered by two NVIDIA DGX-2 systems with 16 A100 GPUs and 10 petaflop computing power for ultra-fast, scalable, and high-bandwidth AI workloads.
- ❖ DGX A100 architecture with eight NVIDIA A100 Tensor Core GPUs per system, offering a combined 320 GB high-speed GPU memory for large-scale model training.
- ❖ Optimized hardware–software ecosystem enabling seamless AI training, inference, and deployment across diverse applications.
- ❖ Supports advanced education and research in AI, Machine Learning, Deep Learning, Computer Vision, NLP, and Data Science with real-time, hands-on learning.
- ❖ Enables interdisciplinary research and large-scale problem solving for students, researchers, and faculty.
- ❖ Fosters innovation, startups, and industry collaboration, translating AI research into real-world impact.

Software Specifications

- Supports various operating systems, including Linux (Red Hat, CentOS, SUSE, Ubuntu, and others) and VMware ESXi
- Supports every Deep Learning framework (Pytorch, TensorFlow, Apache Spark)

Hardware Specifications

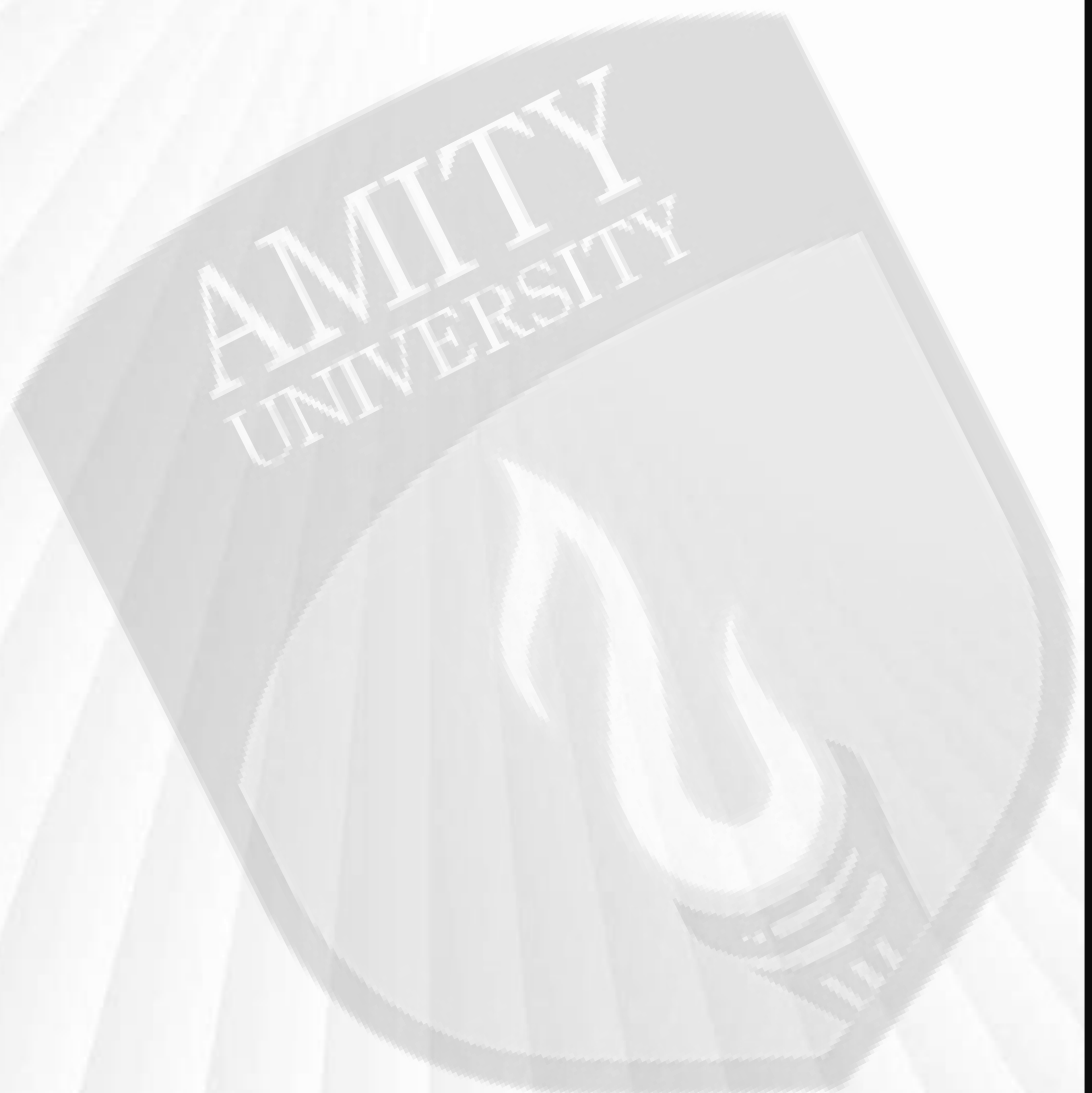
- Dual AMD EPYC 7003 series processors with up to 64 cores per processor
- Support for PCIe Gen4
- Support for up to 4TB of DDR4 memory



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AI Innovations @ ACAI



TECHNOLOGY | BIOMEDICAL INTELLIGENCE | LIVER DISEASE PREDICTION
A comparative analysis of machine learning classifiers for chronic liver disease prediction in rats

- Dr. Abhishek Kaushal,
 (Amity Centre for Artificial Intelligence, Amity University, Noida.)



JOURNAL ARTICLE

A comparative analysis of machine learning classifiers for chronic liver disease prediction in rats

Get access >

Aqsa Nadeem, Sonia Bisht, Abhishek Kaushal, Sangeetha Gupta ✉

Journal of Pharmacy and Pharmacology, rgaf121, <https://doi.org/10.1093/jpp>

Published: 09 December 2025 Article history ▾

“ Cite Permissions Share ▾

- Chronic liver disease (CLD) progresses silently from fibrosis to cirrhosis and hepatocellular carcinoma, making early and accurate staging crucial. Traditional preclinical methods rely on invasive histopathology and animal sacrifice, limiting ethical and real-time assessment.
- This study presents a non-invasive machine learning approach for staging CLD in rat models using routine biochemical markers (AST, ALT) and thioacetamide dosing data. Among the evaluated models, CatBoost achieved near-perfect accuracy in distinguishing fibrosis, cirrhosis, and liver cancer, highlighting ML’s potential to enable ethical, efficient, and reproducible liver disease modeling with future translational relevance.

Key Highlights:

- Machine learning enables non-invasive staging of chronic liver disease in experimental models
- Compares six ML classifiers for fibrosis, cirrhosis, and liver cancer prediction
- CatBoost outperforms all models with near-perfect accuracy and reliability
- Uses routine biomarkers (AST & ALT) for cost-effective disease prediction
- Reduces dependence on animal sacrifice and invasive histopathology
- Supports ethical and reproducible preclinical research
- Demonstrates real-time disease monitoring potential
- Bridges AI innovation with pharmacological research

“Empowering Preclinical Liver Disease Research Through Intelligent, Ethical, and Data-Driven AI Solutions.”

Relevant Publication: Aqsa Nadeem, Sonia Bisht, Abhishek Kaushal, and Sangeetha Gupta, “A Comparative Analysis of Machine Learning Classifiers for Chronic Liver Disease Prediction in Rats”, Journal of Pharmacy and Pharmacology (JPP), Oxford University Press, 2025. SCI Indexed, Impact Factor: 3.2, 2025, DOI: doi.org/10.1093/jpp/rgaf121. Area: Machine Learning.

SpineDeep-Net: Intelligent Dual Self-Attention Deep Learning for Precise Lumbar Spine MRI Slice Selection

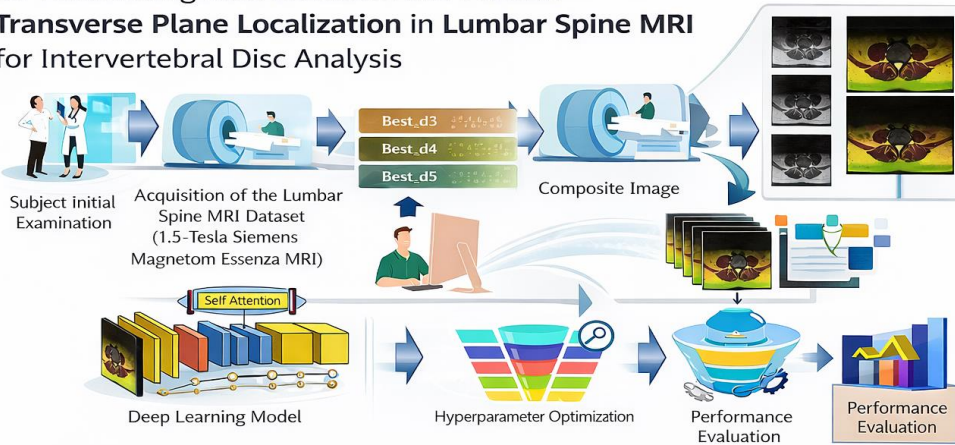
- Dr. Rakesh Chandra Joshi,
(Amity Centre for Artificial Intelligence, Amity University, Noida.)

SpineDeep-Net:



WILEY Online Library

Dual-Self-Attention-Based Deep Neural Network for Automating Slice Selection and Precise Transverse Plane Localization in Lumbar Spine MRI for Intervertebral Disc Analysis



SpineDeep-Net | Automating Lumbar Spine MRI Analysis

Rashmi Singh, Rakesh Chandra Joshi, Suzain Rashid, Radim Burget, Malay Kishore Dutta

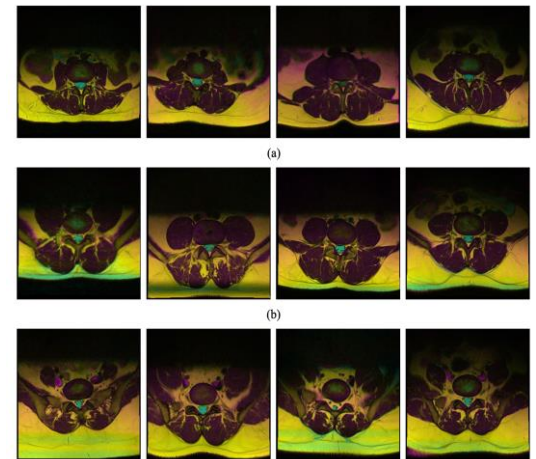
225 1.7K 2.1K

“Smarter MRI. Faster Decisions. Better Spine Care.”

- ❖ Lumbar spine disorders are a major cause of chronic back pain, and accurate diagnosis depends on selecting clinically relevant MRI slices—a process that is often manual and error-prone. SpineDeep-Net introduces a fully automated, dual self-attention-based deep learning framework to precisely identify critical lumbar transverse MRI slices.
- ❖ Focusing on key intervertebral disc levels (L3/L4, L4/L5, L5/S1), the model captures long-range spatial dependencies and subtle disc variations, outperforming existing methods with high accuracy and real-time performance. This approach shows strong potential as a scalable clinical decision-support tool, reducing radiologist workload while improving diagnostic reliability.

Key Highlights:

- Automated MRI slice selection: Eliminates manual, time-consuming identification of key lumbar spine slices.
- Dual self-attention intelligence: Enhances focus on subtle disc-level features and long-range spatial relationships.
- Precise disc localization: Accurately targets mid-height transverse slices of L3/L4, L4/L5, and L5/S1 levels.
- High diagnostic reliability: Delivers strong accuracy and specificity for consistent lumbar disc analysis.
- Real-time performance: Enables fast processing suitable for routine clinical workflows.
- Radiologist decision support: Improves efficiency and consistency without replacing clinical expertise.
- Scalable AI framework: Designed for practical deployment in computer-aided spine diagnostics.



Sample images with different types of Lumbar spine disc slices: (a) L3/L4, (b) L4/L5, (c) L5/S1.

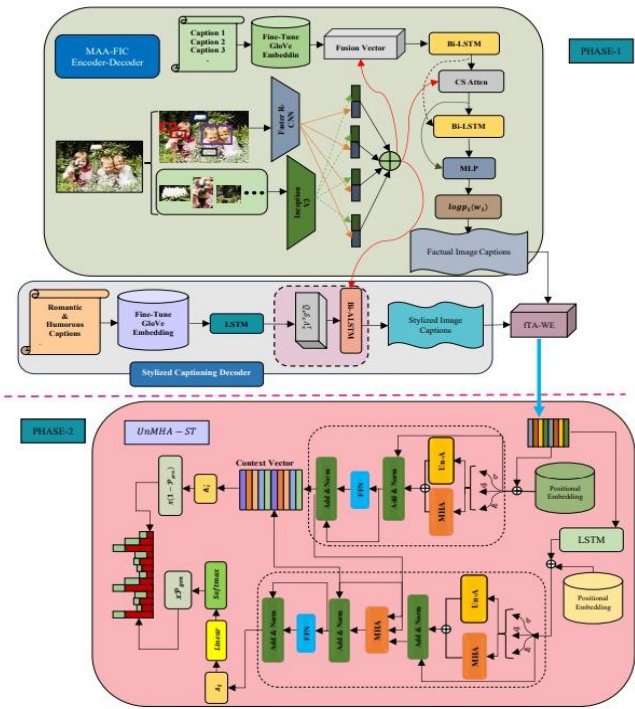
Relevant Publication: Rashmi Singh, Rakesh Chandra Joshi, Suzain Rashid, Radim Burget and Malay Kishore Dutta, “SpineDeep-Net: Dual-Self-Attention-Based Deep Neural Network for Automating Slice Selection and Precise Transverse Plane Localization in Lumbar Spine MRI for Intervertebral Disc Analysis” International Journal of Imaging Systems & Technology, 2025. DOI : <https://doi.org/10.1002/ima.70280>, Wiley Publishers, SCI indexed Impact Factor 2.5. Area: Deep learning, Computer Vision.

TECHNOLOGY FRONT | VISUAL INTELLIGENCE

UnMA-CapSumT: The AI That Sees, Feels, and Writes

- Dr. Dhruv Sharma,

(Amity Centre for Artificial Intelligence, Amity University, Noida.)



modules:

- MAA-FIC (Modified Adaptive Attention-based Factual Image Captioning): Focuses on factual accuracy using deep visual attention.
- SF-Bi-ALSTM (Style-Factored Bidirectional LSTM): Infuses personality, allowing captions to sound romantic or humorous.

These outputs are then fused by a transformer-based summarization network (UnMHA-ST), which unifies the tones into a single, expressive caption—something no previous model has achieved.

Real-World Applications

Beyond research, this innovation opens doors for:

- Assistive technologies for the visually impaired
- Social media automation that adapts captions by mood
- Storytelling AI capable of generating stylistically rich narratives

As AI evolves from analysis to artistry, UnMA-CapSumT stands as a milestone—teaching machines not only to see, but to feel and to narrate.

Artificial Intelligence is learning not just to see—but to understand and express. A new breakthrough model, UnMA-CapSumT (Unified and Multi-Head Attention-driven Caption Summarization Transformer), is redefining how machines describe images, blending accuracy with human-like style and sentiment.

Traditionally, AI systems could describe what they saw—a “dog running in a park”—but not how it felt. UnMA-CapSumT changes that. This model generates captions that combine factual accuracy, romantic flair, and humorous tone—all in one coherent, natural-sounding sentence.

“We wanted a system that doesn’t just identify what’s in the image but also captures its essence,” says lead author Dhruv Sharma.

A Unified Vision

At its core, the model integrates two powerful

Key Highlights:

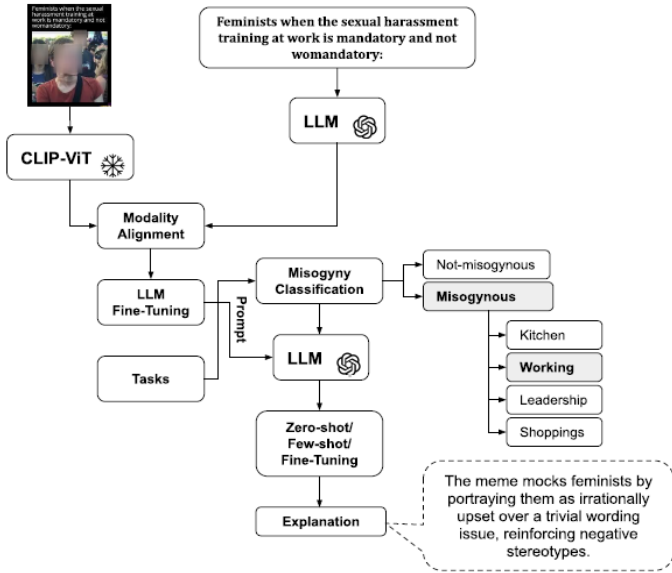
- Introduces UnMA-CapSumT, a unified transformer for image caption summarization.
- Combines factual, romantic, and humorous captions into one coherent sentence.
- Uses multi-head and unified attention for better contextual understanding.
- Employs fTA-WE (fastText with attention) for rich word representation.
- Integrates pointer-generator and coverage mechanism to avoid repetition and OOV issues.
- Achieves state-of-the-art performance on Flickr8K and FlickrStyle10K datasets.
- Enhances image captioning for applications like social media, storytelling, and AI assistants

“When AI learns emotion—every image tells a story.”

Relevant Publication: Dhruv Sharma, Chhavi Dhiman, & Dinesh Kumar, (2025). UnMA-CapSumT: Unified and Multi-Head attention-driven caption summarization transformer. Journal of Visual Communication and Image Representation, 104600. <https://doi.org/10.1016/j.jvcir.2025.104600>, 2025

When Memes Turn Mean: AI That Exposes Misogyny Hidden in Humor

- Dr. Gopendra Vikram Singh,
(Amity Centre for Artificial Intelligence, Amity University, Noida.)



powered by CLIP-ViT (for image analysis) and Llama-3 (for text interpretation). These two components are fused through a cross-attention mechanism, allowing the system to “see” and “read” a meme the way humans do. The AI then labels whether a meme contains misogyny, classifies it into categories—Kitchen, Leadership, Working, or Shopping—and generates a written explanation describing the stereotype or offensive tone detected. This reasoning ability comes from integrating Large Language Models (LLMs), which simulate human understanding and provide context-based judgments.

In the age of viral humor, not every meme is harmless. Behind the laughs and likes, many memes quietly reinforce gender bias and promote misogyny. A pioneering team of researchers has now built an artificial intelligence framework that not only detects misogynistic memes but also explains the reasoning behind them — a world-first step toward creating safer digital spaces. The model, named MM-Misogyny, takes memes apart—analyzing both text and image—to uncover hidden sexist undertones. Unlike earlier tools that relied solely on keywords or simple text detection, this system dives deeper into visual cues, captions, tone, and context, revealing how subtle humor can perpetuate harmful stereotypes.

“Our model doesn’t just flag a meme—it tells you why it’s problematic,” explains lead researcher Dr. Gopendra Vikram Singh from Amity Center for Artificial Intelligence.

MM-Misogyny uses a dual-engine approach



(a) Kitchen



(b) Leadership



(c) Working

Key Highlights:

- AI Detects Misogyny: New model MM-Misogyny identifies and explains sexist memes.
- Dual-Mode Analysis: Combines text (Llama-3) and image (CLIP-ViT) understanding.
- Real Dataset: Introduces WBMS with 2,100 real-world misogynistic memes.
- High Accuracy: Achieved 89% precision in detecting online gender bias.
- Social Impact: Supports UN SDG goals for gender equality and reduced inequality.
- Human-Like Insight: Provides clear reasoning for why content is deemed misogynistic.
- Ethical AI Use: Aims to make online spaces more respectful and inclusive.

“When humor hides hate — AI reveals the truth.”

Relevant Publication: Kushal Kanwar, Dushyant Singh Chauhan, Gopendra Vikram Singh, Asif Ekbal “What is Beneath Misogyny: Misogynous Memes Classification and Explanation” 34th International Joint Conference on Artificial Intelligence (IJCAI) - 2025 Montreal, Canada, August 16 to August 22, 2025, DOI: <https://doi.org/10.24963/ijcai.2025/1083>

A Hybrid CNN Model with Residual & Capsule Layer for Yoga Pose Estimation

A Hybrid CNN Model with Residual & Capsule Layer for Yoga Pose Estimation



Accurate Yoga Pose Detection Powered by AI

Accurate yoga pose recognition is essential for building intelligent wellness and fitness applications, yet real-world variations in posture, lighting, and body occlusion continue to challenge existing systems. This study presents a powerful hybrid deep-learning framework that blends Convolutional Neural Networks (CNNs) with residual connections and capsule layers to deliver robust yoga pose estimation. By combining residual learning to overcome vanishing gradients with capsule networks that preserve spatial relationships, the model effectively understands complex body movements beyond traditional CNN limitations. Trained on seven distinct yoga postures, the proposed architecture demonstrates exceptional performance, achieving a validation accuracy of 96.62% using the Adam optimizer while maintaining a relatively low number of trainable parameters. Comprehensive evaluation using accuracy curves, ROC analysis, and classification metrics confirms the model's reliability and efficiency. This work highlights how integrating residual and capsule learning can significantly enhance pose recognition, paving the way for smarter, real-time yoga coaching systems and next-generation AI-driven health applications.



Key Highlights:

- **Hybrid AI Architecture:** Introduces a novel fusion of CNN, Residual Networks, and Capsule Layers for accurate yoga pose estimation.
- **Smarter Pose Understanding:** Capsule layers preserve spatial relationships, enabling better recognition of complex and overlapping yoga postures.
- **Training Made Efficient:** Residual connections overcome vanishing gradient issues, allowing deeper learning with stable performance.
- **High Accuracy, Fewer Parameters:** Achieves an impressive 96.62% validation accuracy with significantly fewer trainable parameters than popular deep models.
- **Robust Real-World Performance:** Effectively handles pose variations, occlusions, lighting changes, and diverse backgrounds.
- **Optimizer Comparison:** Adam optimizer outperforms RMSprop and SGD, delivering the best classification results.



(e)



(f)

“AI that understands the language of yoga.”

Student Author :



Kamakhya Chaturvedi
USRF- 2023
Student



Aman Gupta
USRF- 2023
Student

Relevant Publication:

Sneha Sharma., Kamakhya Chaturvedi., Aman Gupta & Malay Kishore Dutta “A Hybrid CNN Model with Residual & Capsule Layer for Yoga Pose Estimation”. Adaptive Intelligence. Lecture Notes in Electrical Engineering, vol 1280. Springer, Singapore. https://doi.org/10.1007/978-981-97-9045-6_32

Multi-Scale Multi-Headed Attention Framework for Wearable IMU-Based Exercise Recognition

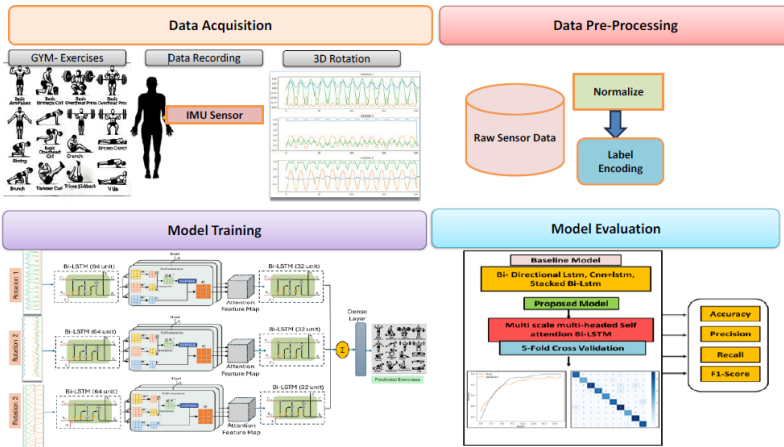


Fig. 1. Overview of the Framework

As wearable devices become central to modern fitness and digital health, accurately recognizing human exercises from sensor data is a growing challenge. This paper presents an intelligent IMU-based exercise recognition framework that combines stacked Bi-LSTM networks with a multi-scale, multi-head attention mechanism to better understand complex human movements. By analyzing data from accelerometers, gyroscopes, and magnetometers, the model learns both short- and long-term motion patterns while remaining robust to sensor rotation and placement variations—common issues in real-world wearable usage. Achieving an average accuracy of around 95%, the proposed approach outperforms conventional deep learning models and demonstrates strong generalization across multiple exercises. With its real-time readiness and scalable design, the framework shows strong potential for applications in fitness tracking, sports analytics, rehabilitation monitoring, and next-generation wearable health technologies.

Your Workout, Under the Microscope: Smarter Sensors in Action

“Revolutionizing Fitness Tracking: Smarter Motion Recognition with Every Move.”

Student Author :



Janga Bharat Reddy
B.Tech Student,
(2022-26)
Amity University

Key Highlights:

- Multi-Scale, Multi-Head Attention innovation for smarter workout recognition
- IMU-powered intelligence using accelerometer, gyroscope, and magnetometer data
- Stacked Bi-LSTM backbone captures complex human motion patterns
- Rotation-aware learning makes the model robust to sensor placement variations
- Self-attention mechanism focuses on the most important movement segments
- 95% average accuracy, significantly outperforming conventional CNN-LSTM models
- Minimal overfitting with fast and stable training convergence
- Precise classification validated through strong confusion matrix results
- Real-time ready framework for fitness tracking and rehabilitation monitoring
- Scalable for wearable health tech, smart coaching, and sports analytics

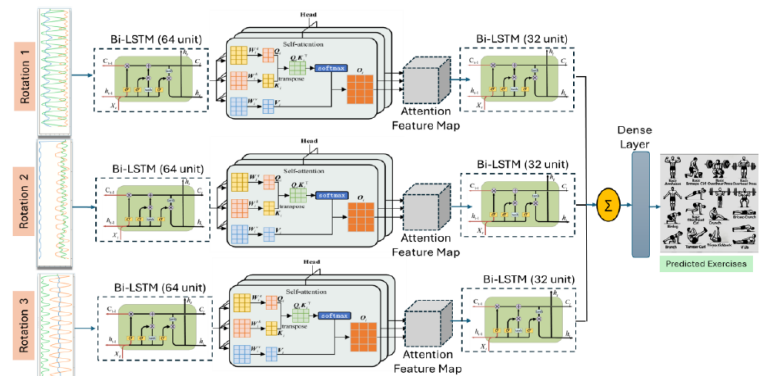


Fig. 2. Proposed Network architecture

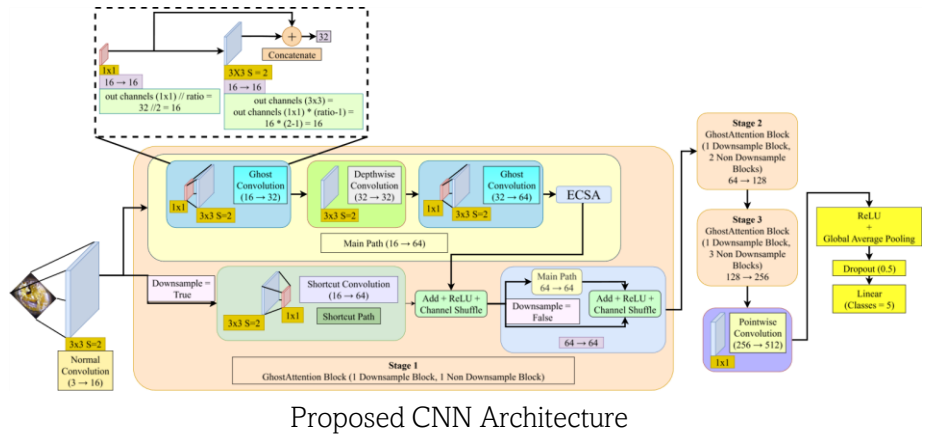
Relevant Publication:

Sneha Sharma, Janga Bharat Reddy, Sanatan Ratna, “Multi-Scale Multi-Headed Attention Framework for Wearable IMU-Based Exercise Recognition”, 3rd International Conference on Data Science and Information System (ICDSIS-2025), Publisher: IEEE Xplore, DOI:10.1109/ICDSIS65355.2025.11071220, May 2025.

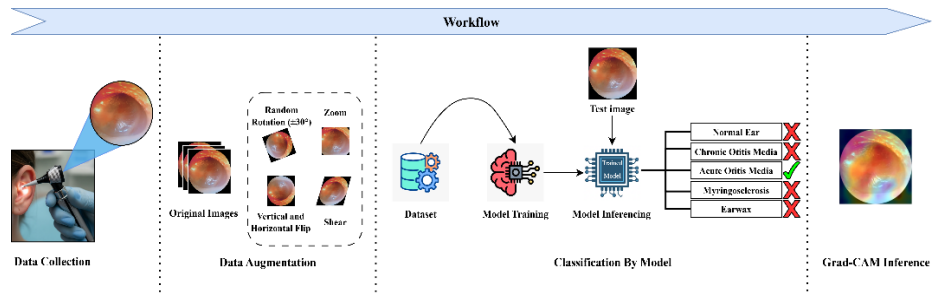
OtoscopeNet: An Efficient and Attention-Driven Deep Learning Framework for Robust Diagnosis of Ear Diseases.

Key Highlights:

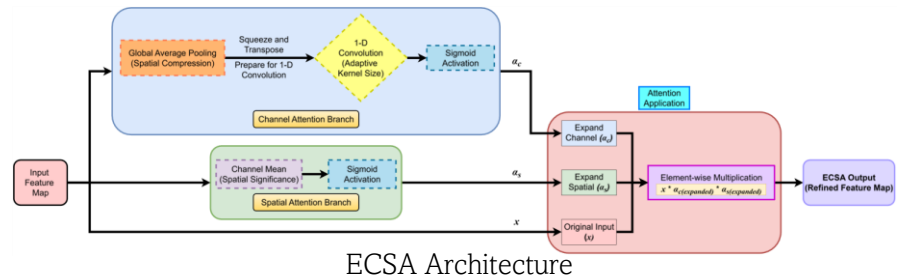
- Proposes an AI-assisted otoscope framework for automated ear disease diagnosis
- Enables early and accurate detection of common ear conditions from otoscopic images
- Utilizes a deep learning-based image analysis pipeline for robust classification
- Reduces dependency on specialist expertise, supporting primary healthcare screening
- Designed for real-time and portable diagnostic applications
- Demonstrates high classification accuracy on clinically relevant datasets
- Enhances accessible, scalable, and cost-effective ear healthcare solutions



Proposed CNN Architecture



Proposed Methodology



ECSA Architecture

Relevant Publication: Manomay Bundawala, Aditya Tripathy, Abhishek Kaushal, Anupam Mishra, Malay Kishore Dutta², “OtoscopeNet: An Efficient and Attention-Driven Deep Learning Framework for Robust Diagnosis of Ear Diseases” 5th International Conference on Advanced Network Technologies and Intelligent Computing, IIIT – Gwalior.

Student
Author :



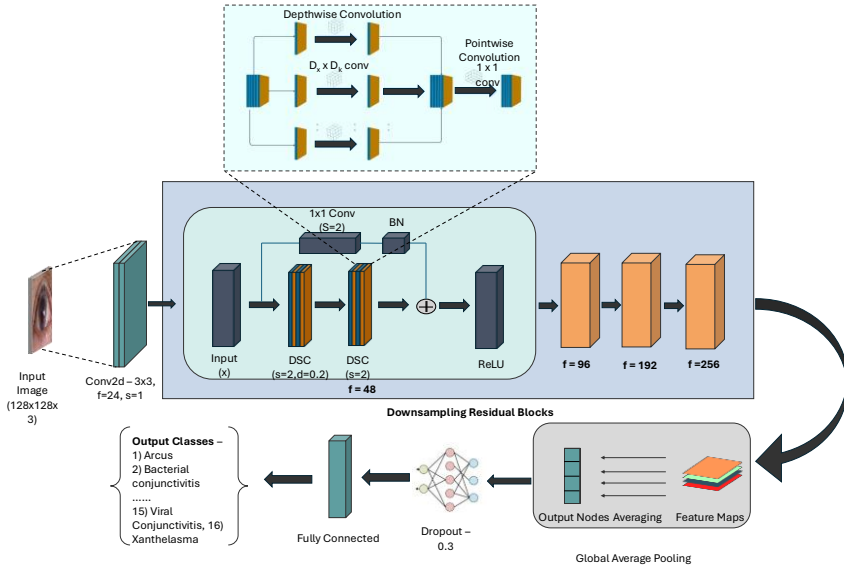
Manomay Bundawala
B.Tech Student,
(2022-26)
Amity University



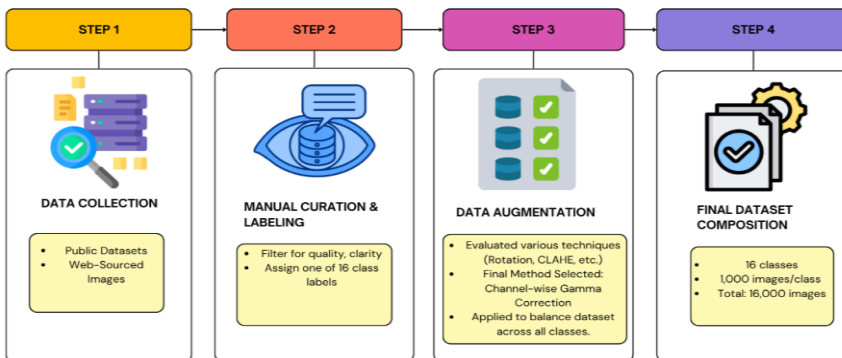
Aditya Tripathy
B.Tech Student,
(2022-26)
Amity University

“Listening Smarter:
AI-Powered Vision
Transforming Ear
Disease Diagnosis.”

TinyEyeNet: An Efficient CNN for Classifying Anterior Segment Eye Conditions.



The proposed TinyEyeNet architecture features four DSC-based residual blocks with a 48-96-192-256 filter progression, followed by a GAP-based head for 16-class classification



Overview of the four-step data processing pipeline. The process includes data collection, manual curation, augmentation with channel-wise gamma correction, and results in a final balanced dataset of 16,000 images across 16 classes.

Key Highlights:

- TinyEyeNet introduces a lightweight CNN for accurate anterior segment eye disease classification
- Designed for high performance with low computational cost, ideal for real-world deployment
- Trained and validated on a custom-curated clinical eye image dataset
- Achieves strong diagnostic accuracy, outperforming conventional deep models
- Suitable for resource-constrained and portable ophthalmic screening systems
- Enables faster, scalable, and accessible eye disease detection

Relevant Publication: Anjali Singh, Parth Mani Sharma, Abhishek Kaushal, Malay Kishore Dutta, "TinyEyeNet: An Efficient CNN for Classifying Anterior Segment Eye Conditions" 5th International Conference on Advanced Network Technologies and Intelligent Computing.

Student Author :



Anjali Singh
B.Tech Student,
(2022-26)
Amity University



Parth Mani Sharma
B.Tech Student,
(2022-26)
Amity University

"Tiny Model, Powerful Vision: Redefining Accessible Eye Disease Diagnosis."

EffiSwinNet: A Cross-Architecture Deepfake Detection with Style GAN Generated Faces

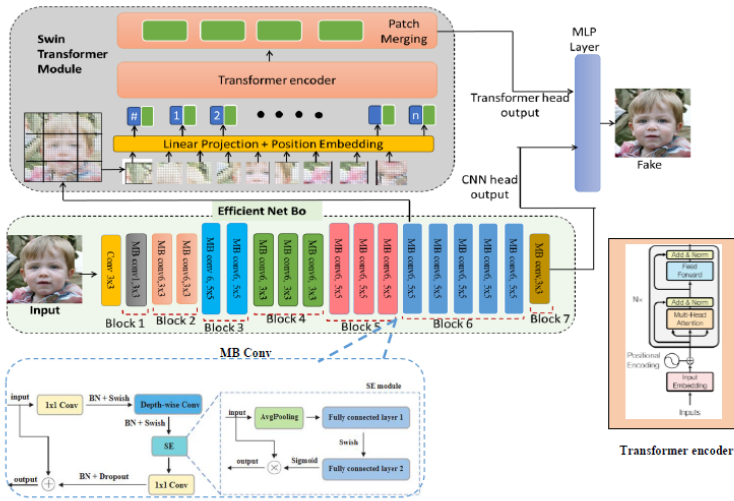


Fig. 1. Diagrammatic representation of the proposed EffiSwinNet

Built for Real-World Deepfake Detection at Scale

Unlike many existing approaches that struggle with scalability or computational cost, EffiSwinNet is designed with real-world deployment in mind. Trained on a large-scale dataset of 140,000 real and fake facial images, including StyleGAN-generated deepfakes and DFDC benchmark data, the model demonstrates strong generalization across diverse demographics, lighting conditions, facial accessories, and image resolutions. Despite using only around 4.25 million trainable parameters, the proposed model achieves an impressive 99% detection accuracy, making it both resource-efficient and highly effective—an essential balance for modern AI security systems.

Key Highlights:

- Hybrid AI model combining EfficientNet and Swin Transformer
- 99% deepfake detection accuracy on StyleGAN-generated faces
- Lightweight architecture with only ~4.25M parameters
- Captures local + global facial artifacts using attention mechanisms
- Fast inference, suitable for near real-time detection
- Explainable AI with Grad-CAM visual insights
- Designed for real-world cybersecurity and digital forensics

AI vs Deepfakes: A Growing Digital Arms Race

As deepfake technology continues to blur the line between reality and fabrication, the need for reliable, intelligent detection systems has never been more urgent. Powered by advanced Generative Adversarial Networks (GANs), especially StyleGAN, today's synthetic faces are visually indistinguishable from real ones, posing serious threats to digital identity, cybersecurity, financial fraud, misinformation, and social trust. From manipulated social media content to identity fraud in KYC systems, deepfakes have emerged as a critical challenge for governments, enterprises, and individuals alike. This research directly addresses this global concern by introducing a robust AI-driven solution capable of detecting even high-fidelity synthetic facial images with remarkable precision.

EffiSwinNet: Where CNN Efficiency Meets Transformer Intelligence

At the heart of this work lies EffiSwinNet, a novel hybrid deep learning architecture that strategically combines the strengths of EfficientNetB0 and the Swin Transformer. While convolutional neural networks excel at capturing fine-grained local textures and facial artifacts, vision transformers bring a powerful ability to model long-range spatial dependencies through self-attention mechanisms. EffiSwinNet bridges this gap by enabling efficient local feature extraction alongside global contextual understanding, resulting in a detector that is both lightweight and highly accurate. This cross-architecture fusion allows the model to uncover subtle manipulation traces that often evade traditional CNN-based deepfake detectors.

Relevant Publication:

Sejuti basu, Sneha Sharma, Arjkajit baneerjee, Pragna Yanduri, "EffiSwinNet: A Cross-Architecture Deepfake Detection with Style GAN Generated Faces" 2025 International Conference on Computing, Intelligence, and Application (CIACON 2025), Publisher: IEEE Xplore, DOI:10.1109/CIACON65473.2025.11189359, July 2025.

Student

Author :



Arjkajit baneerjee
USRF- 2024
Student



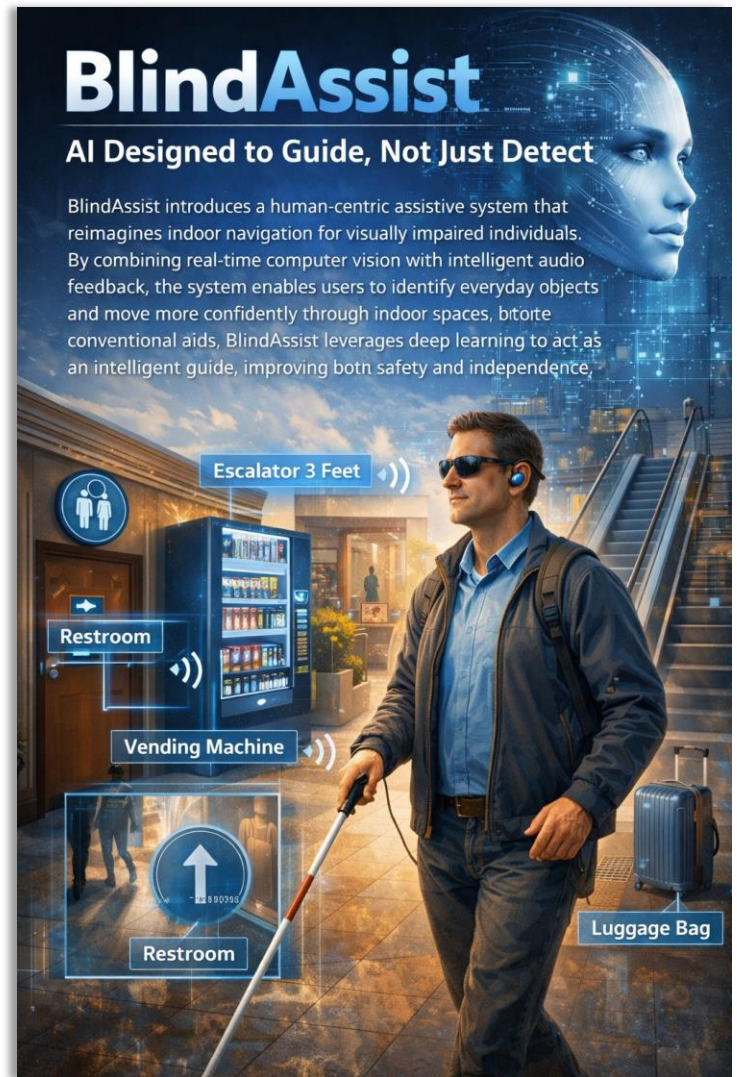
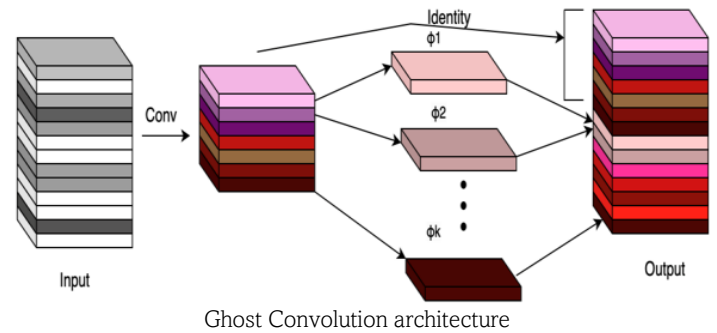
Pragna Yanduri
USRF- 2024
Student

“Unmasking deepfakes with AI that sees beyond human perception.”

BlindAssist: Turning Vision into Guidance with Intelligent AI

Key Highlights:

- Real-time indoor object detection system designed to assist visually impaired users.
- Uses custom YOLOv9s architecture enhanced with attention and lightweight convolutions.
- Introduces three novel RepNCSPPELAN variants: G-Rep, CBAM-Rep, and GCBAM-Rep.
- CBAM-RepNCSPPELAN achieved best performance, improving mAP@50 by 8.09%.
- Ghost Convolution reduced parameters while maintaining strong detection accuracy.
- Provides audio feedback with object name and direction using text-to-speech.
- Optimized for real-time, edge-device deployment in indoor environments.
- Enhances navigation safety and independence for visually impaired individuals.



Relevant Publication:

Athulya Bindu Sujith, Jahanavi Mishra, Ayush Chikara, Vanshika Berry, Sneha Sharma, Bhupendra Singh, "Blind Assist: Indoor Object Detection for Visually Impaired using CBAM and Ghost Convolutions" 3rd International Conference on Data Science and Information System (ICDSIS-2025), DOI:10.1109/ICDSIS65355.2025.11070945, May 2025

"BlindAssist: Giving Direction, Confidence, and Independence Through AI."

Student
Author :



Athulya Bindu Sujith
B.Tech Student,
(2021-25)
Amity University



Jahanavi Mishra
B.Tech Student,
(2021-25)
Amity University



Ayush Chikara
B.Tech Student,
(2021-25)
Amity University

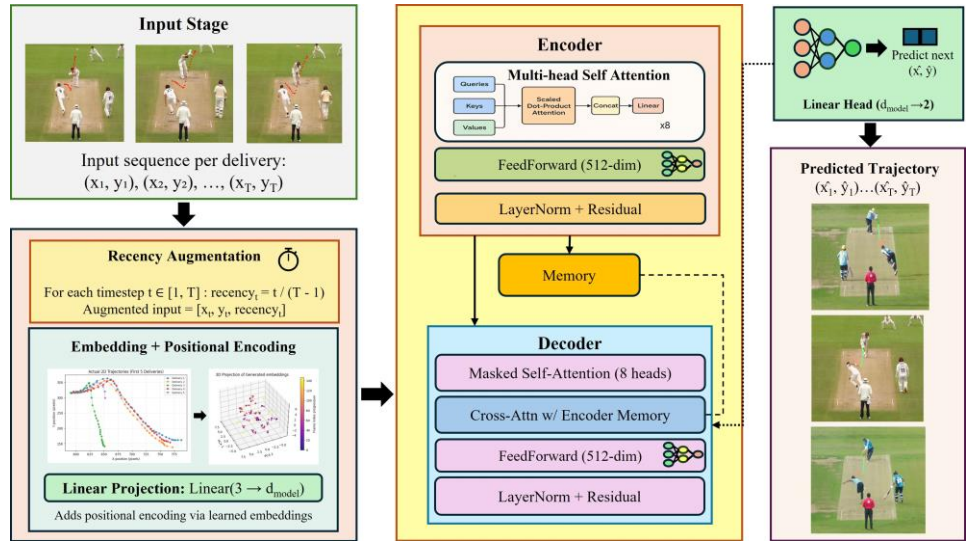


Vanshika Berry
B.Tech Student,
(2021-25)
Amity University

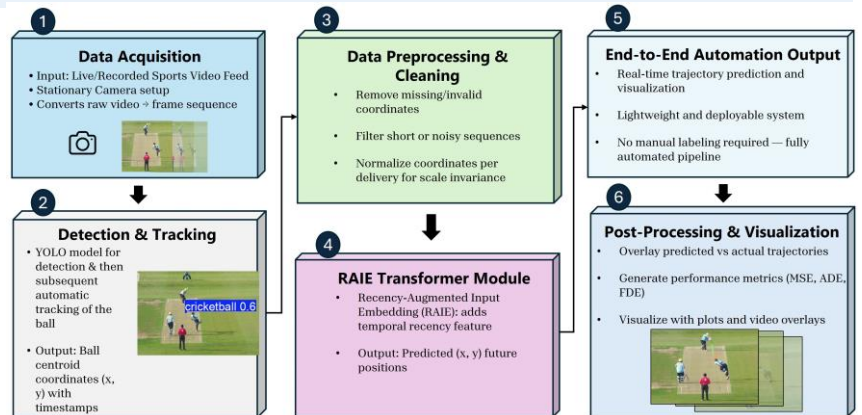
The AI Revolution in Cricket: A Recency-Augmented Transformer Transforming Trajectory Prediction

Key Highlights:

- Introduces the RAIE Transformer, a lightweight, recency-augmented architecture designed specifically for accurate cricket ball trajectory prediction using short input sequences.
- Uses a curated dataset of 4,400 frames from 212 cricket deliveries, manually annotated and preprocessed for reliable spatio-temporal modelling.
- Incorporates a novel Recency-Augmented Input Embedding (RAIE) that prioritizes recent motion cues while preserving long-term context to improve prediction accuracy.
- Outperforms traditional models such as LSTM, RNN, Base Transformer, Informer, TimeMixer, and Graph Transformer—achieving MSE 3.95, ADE 2.35, and FDE 2.56, the best among all tested models.
- Provides a fully automated end-to-end pipeline combining YOLO-based detection, interpolation, and autoregressive prediction—eliminating manual annotation requirements.
- Demonstrates strong real-time potential, handling non-linear motion (swing, spin, bounce) with high efficiency and low computational cost, suitable for sports analytics and broadcast applications.



Relevant Publication: Hitesh Reddy Dereddy, Rakesh Chandra Joshi, Ayan Harsh Sinha, Pintu Kumar Ram, Malay Kishore Dutta “RAIE Transformer: A Recency-Augmented Transformer Architecture for Automated Sports Ball Trajectory Prediction in Cricket”. IEEE Transactions on Instrumentation and Measurement, 2025.



Student
Author :



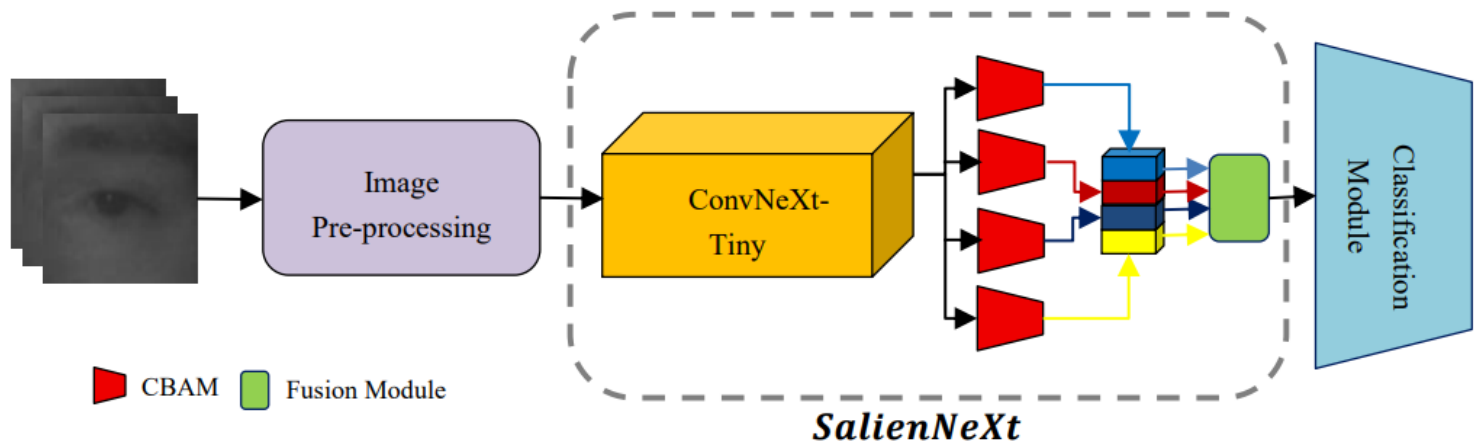
Hitesh Reddy Dereddy
B.Tech Student,
(2022-26)
Amity University



Ayan Harsh Sinha
B.Tech Student,
(2022-26)
Amity University

“When Cricket Meets Intelligence: The Transformer That Sees the Future”

SalienNext: A Smarter, Sharper AI Framework for Detecting Driver Drowsiness



Key Highlights:

- Next-Gen AI Safety: SalienNext uses an upgraded ConvNeXt + CBAM attention design to spot drowsy drivers with far higher accuracy than traditional vision models.
- Ultra-Sharp Eye Detection: Multi-stage attention zooms into subtle eye and facial cues, enabling the system to detect even minor signs of fatigue.
- State-of-the-Art Accuracy: Achieves an impressive 99% accuracy on the MRL Eye Dataset, outperforming leading deep learning models in the field.
- Lightweight & Real-Time Ready: Optimized for speed and efficiency, making it deployable on edge devices inside vehicles.
- Smart Attention Fusion: Combines low-level details and high-level semantics for a clearer understanding of drowsiness signals.
- Designed for Safer Roads: Built to support next-gen ADAS and intelligent transportation systems, targeting reduced accidents and enhanced driver monitoring.

“AI That Never Sleeps — Protecting Drivers When It Matters Most.”

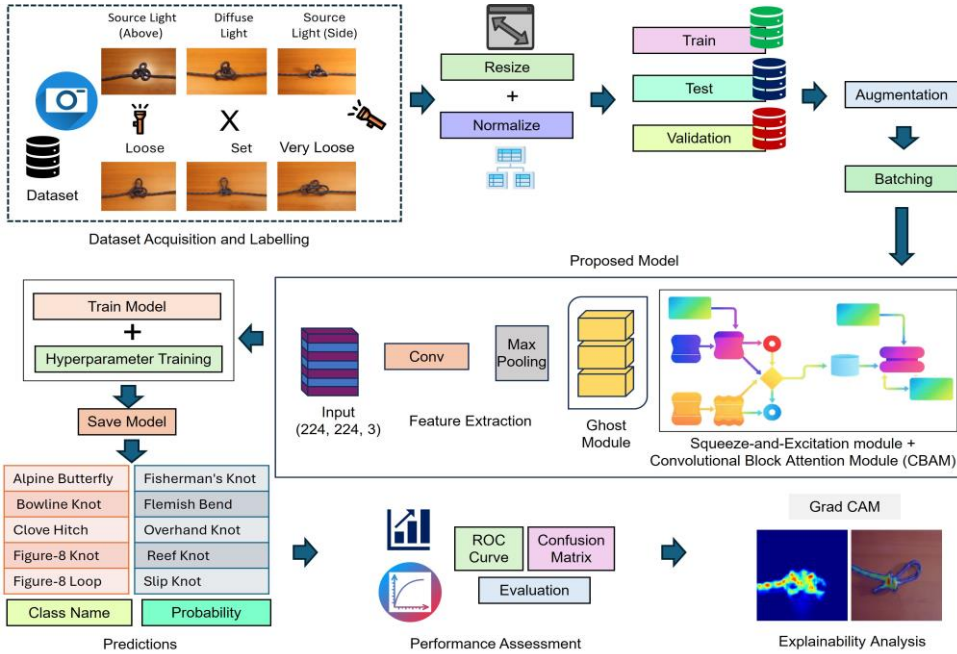
Student
Author :



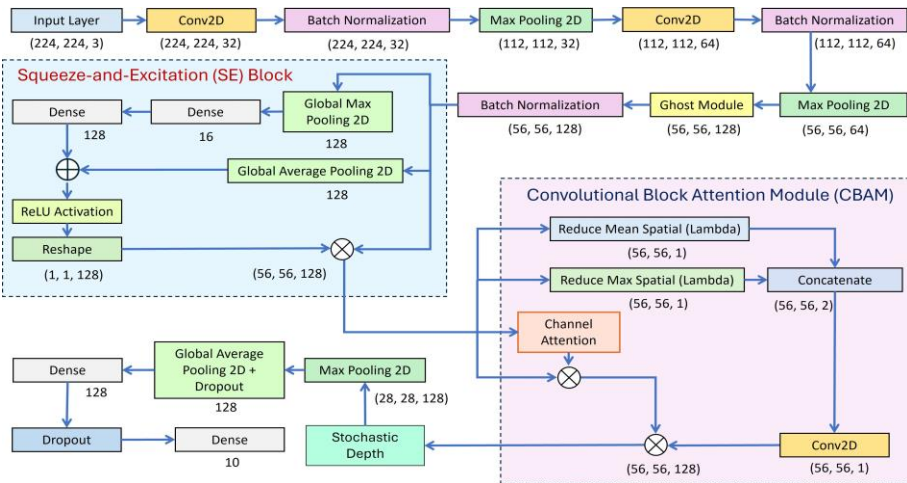
Aadvik Bharadwaj
BTech, CSE (Data Science)
Student, (2022-26)
Amity University

Relevant Publication: Aadvik Bharadwaj, Evam Kaushik, Dhruv Sharma, SalienNext: A CBAM-Enhanced ConvNeXt Framework for Driver Drowsiness Detection, 4th International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2025), Bengaluru, India, Publisher: Springer.

A Lightweight Multi-Attention CNN with Grad-CAM Explainability for Real-Time Knot Classification



“Unraveling Knots with Intelligence: Lightweight AI That Sees What Matters.”



Key Highlights:

- Lightweight multi-attention CNN designed for real-time knot classification.
- Achieves 95.16% test accuracy, outperforming all benchmark models.
- Uses Ghost, SE, and CBAM modules with stochastic depth for efficiency.
- Computationally efficient at 1.03 GFLOPs with 59 ms inference time.
- Grad-CAM explainability highlights knot-specific visual cues for trust and transparency.
- Robust performance across lighting, background, and rope tension variations.

Relevant Publication: Pragati Gupta, Sujata Pradhan, Rakesh Chandra Joshi, “Lightweight Multi-Attention Convolutional Neural Network with Grad-CAM Explainability for Real-Time Knot Classification” 2025 IEEE 17th International Conference on Computational Intelligence and Communication Networks (CICN), 2025. Publisher: IEEE Xplore.

Student Author :



Pragati Gupta
BTech, Biotechnology
Student, (2022-26)
Amity University

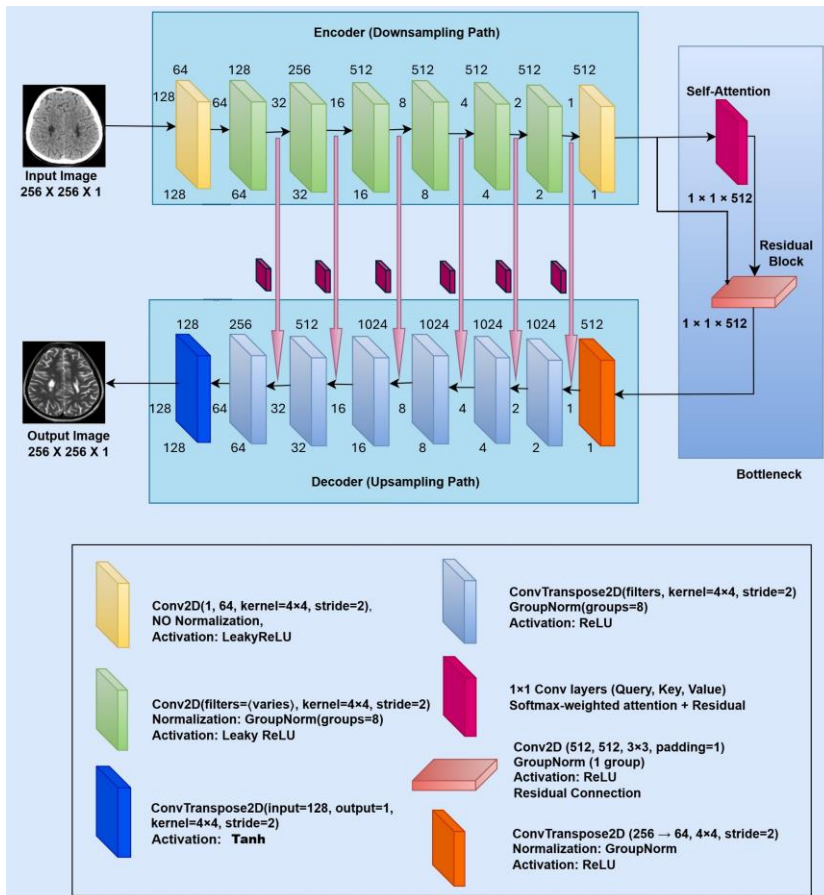


Sujata Pradhan
BTech, Biotechnology
Student, (2022-26)
Amity University

TECHNOLOGY FRONT | DEEP LEARNING | CT-TO-MRI SYNTHESIS

AI Reimagines Radiology: From CT Scans to MRI Precision

Self-Attention U-Net with Residual Bottleneck for High-Quality CT to MRI Image Translation

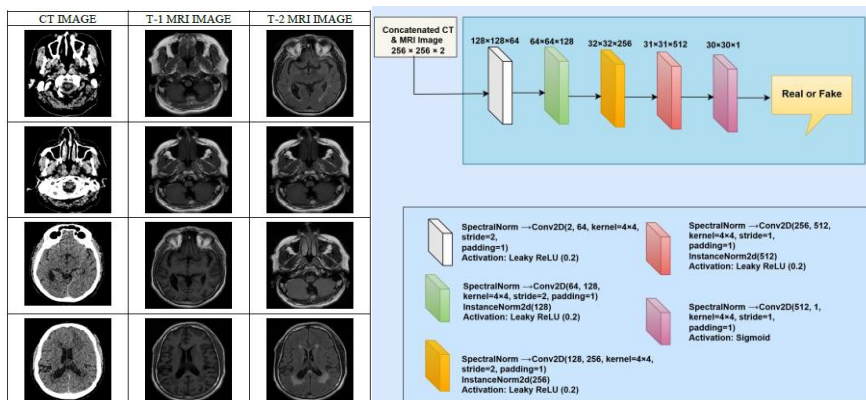


Key Highlights:

- Proposes a Self-Attention U-Net integrated with Residual Bottleneck layers to generate high-quality MRI images from low-cost CT scans.
- Utilizes self-attention mechanisms to capture long-range dependencies, enhancing anatomical and structural accuracy in medical image translation.
- Incorporates a spectral-normalized Patch Discriminator to ensure realistic MRI-like outputs with improved perceptual quality.
- Achieves strong results with PSNR up to 25.78 dB and SSIM up to 0.7125, outperforming baseline models like U-Net, Pix2Pix, and CycleGAN.
- Offers a cost-effective solution for medical imaging in resource-limited regions, improving diagnostic accessibility and healthcare outcomes.

“Transforming Low-Cost CT Scans into High-Quality MRI Images — Advancing Affordable and Intelligent Medical Imaging with Self-Attention U-Net..”

Relevant Publication: Devansh Pandey, Rakesh Chandra Joshi, Anzhelika Mezina, Radim Burget and Malay Kishore Dutta, “Self-Attention U-Net with Residual Bottleneck for High-Quality CT to MRI Image Translation” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, Publisher: IEEE Xplore Digital Library .



Student Author :

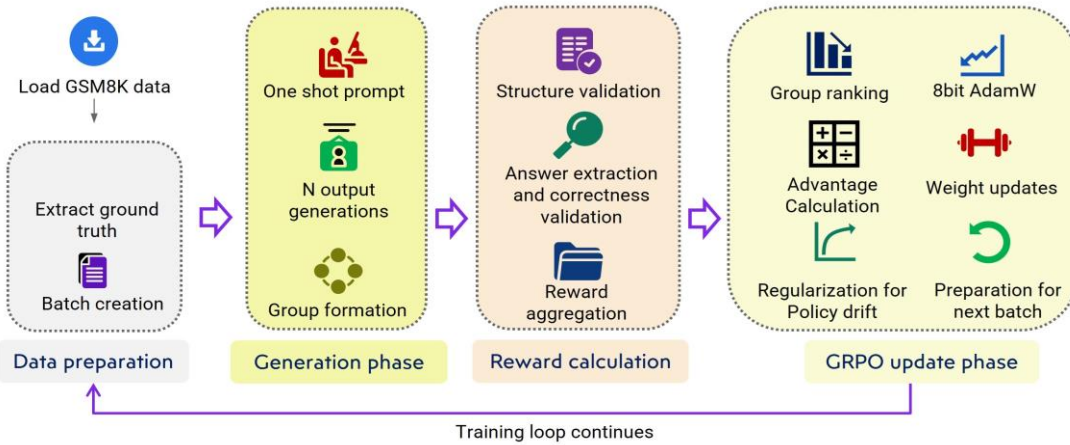


Devansh Pandey
USRF-2025 Fellow Student,
Amity University

TECHNOLOGY FRONT | INTELLIGENT LEARNING | REINFORCEMENT LEARNING

Tiny Models, Big Brains: How AI Masters Math Through Reinforcement

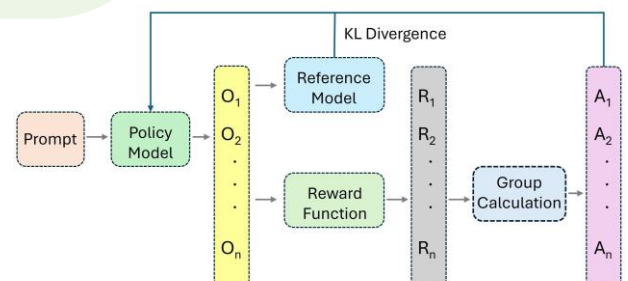
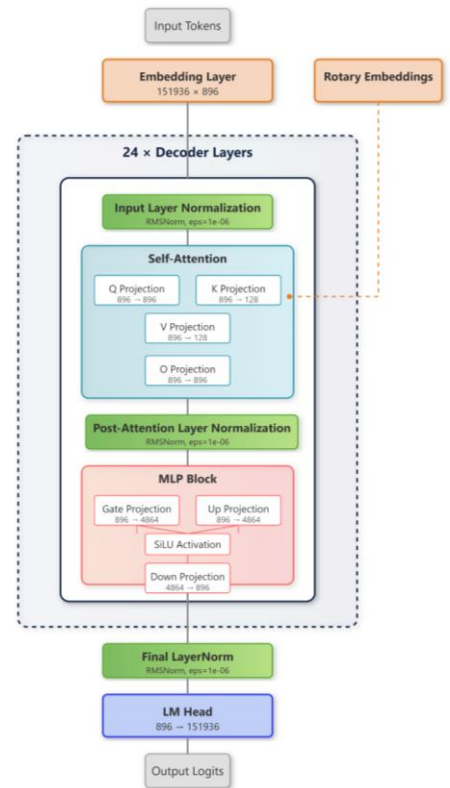
Reinforcement Learning for Mathematical Reasoning in Small-Scale Language Models with Structured Policy Optimization



“Smarter Math, Smaller Models — Reinforcement Learning That Empowers Compact AI to Reason Like the Big Ones..”

Key Highlights:

- Introduces a resource-efficient reinforcement learning framework using Group Relative Policy Optimization (GRPO) to enhance mathematical reasoning in small-scale language models.
- Implements structured prompting with XML-style tags to clearly separate reasoning steps from final answers, improving interpretability and training alignment.
- Integrates memory-efficient optimization techniques—including 8-bit AdamW, mixed precision, gradient checkpointing, and accelerated decoding—to enable single-GPU fine-tuning.
- Achieves 50.95% accuracy on the GSM8K benchmark, outperforming larger models despite using only a 0.5B parameter model.
- Demonstrates that compact LLMs can achieve competitive reasoning ability, making reinforcement learning viable in low-resource environments.



Student Author :



Naman Tyagi

B.Tech, CSE Student, (2022-26)
Amity University



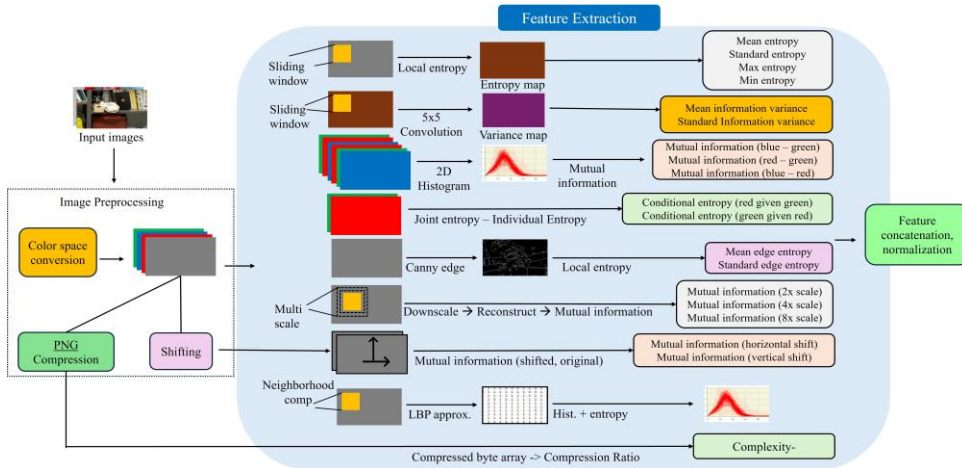
Srishti Das

B.Tech, CSE Student, (2022-26)
Amity University

Relevant Publication: Naman Tyagi, Rakesh Chandra Joshi, Shristi Das, Pavel Sikora, Vojtech Myska, Malay Kishore Dutta, “Reinforcement Learning for Mathematical Reasoning in Small-Scale Language Models with Structured Policy Optimization” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, Publisher: IEEE Xplore Digital Library

Seeing Beyond the Edit: Smarter AI for Detecting Image Splicing

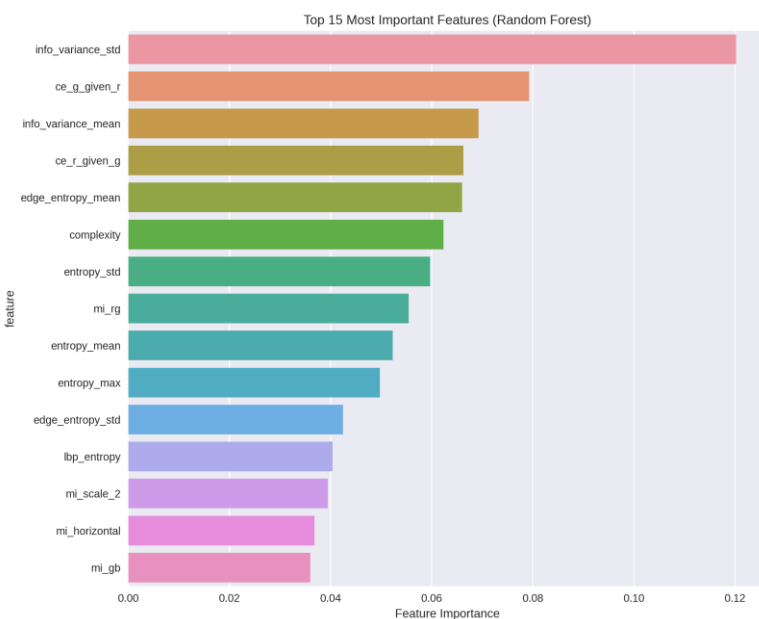
Multi-Domain Information-Theoretic Features and Kolmogorov Complexity for Lightweight Image Splicing Detection



“Exposing Digital Forgeries with the Power of Information — A Lightweight, Explainable Approach to Image Splicing Detection.”

Key Highlights:

- Introduces a lightweight image splicing detection framework based on information-theoretic principles, avoiding the need for deep learning or GPUs.
- Extracts 20 handcrafted features across spatial, cross-channel, and multi-scale domains using entropy, mutual information, and Kolmogorov complexity.
- Achieves 85.32% accuracy, 0.934 AUC-ROC, and 0.8571 F1-score on the Columbia Image Splicing Dataset, rivaling deep models.
- Provides interpretable results through feature importance analysis, identifying key tampering indicators like information variance and conditional entropy.
- Demonstrates a computationally efficient, explainable, and generalizable solution for digital image forgery detection in forensic and media applications.



Relevant Publication: Naman Tyagi, Rakesh Chandra Joshi, Srishti Das, Kunal, Schiller Vojtech, Jezek Stepan, Malay Kishore Dutta “Multi-Domain Information-Theoretic Features and Kolmogorov Complexity for Lightweight Image Splicing Detection”. 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, Publisher: IEEE Xplore Digital Library.

Student Author :

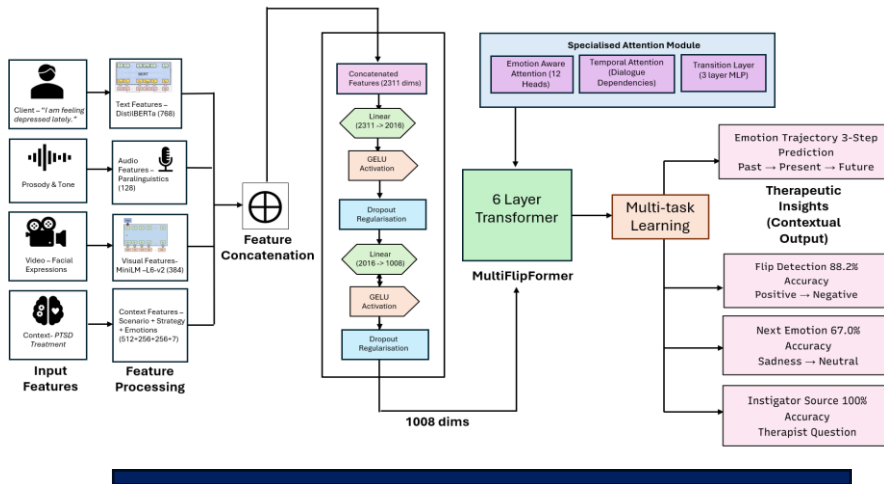


Naman Tyagi & Srishti Das
B.Tech, CSE Student,
(2022-26), Amity University

TECHNOLOGY FRONT | EMOTIONAL INTELLIGENCE | AFFECTIVE AI

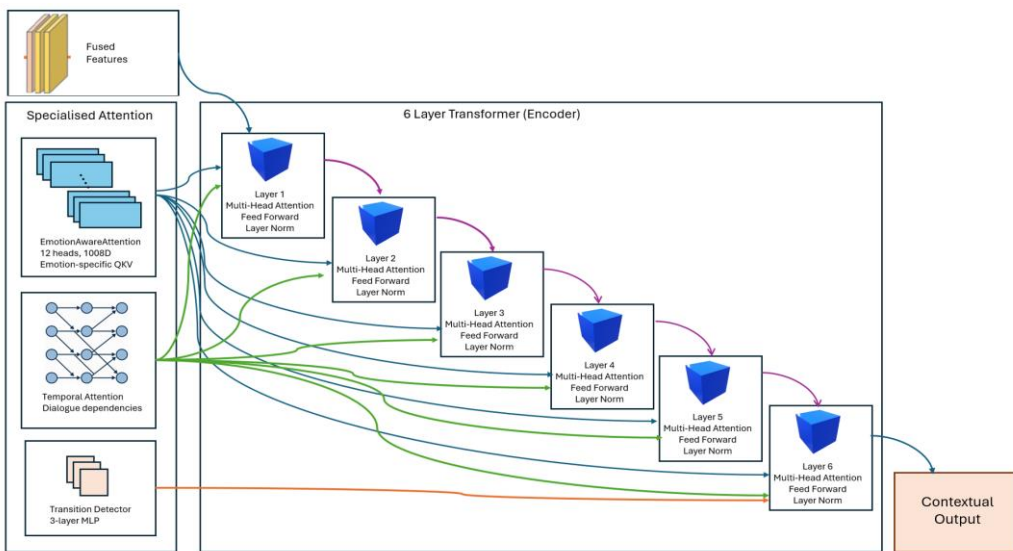
Inside the Emotional Mind: How AI Learns to Sense and Reason About Feelings

MultiFlipFormer: A Multimodal Transformer for Emotion Flip Reasoning and Instigator Detection in Therapeutic Conversations



Key Highlights:

- MultiFlipFormer is a multimodal transformer designed for emotion flip reasoning and instigator detection in therapeutic conversations.
- It models dynamic emotional transitions across dialogue turns using textual, visual, and contextual cues.
- Trained on the MESC dataset with over 28,000 utterances covering 7 emotions and 10 therapy strategies.
- Achieves a weighted F1-score of 0.828 and perfect instigator detection accuracy (1.000).
- Outperforms existing models like TGIF and MPT-HCL, offering real-time therapeutic insights and emotion trajectory forecasting.
- Future work focuses on explainability, few-shot learning, and multilingual adaptation for broader clinical use.



Student Author :



Akshara Sharma
B.Tech Student,
(2022-26)
Amity University

“Understanding emotional shifts to empower smarter, empathetic therapeutic AI.”

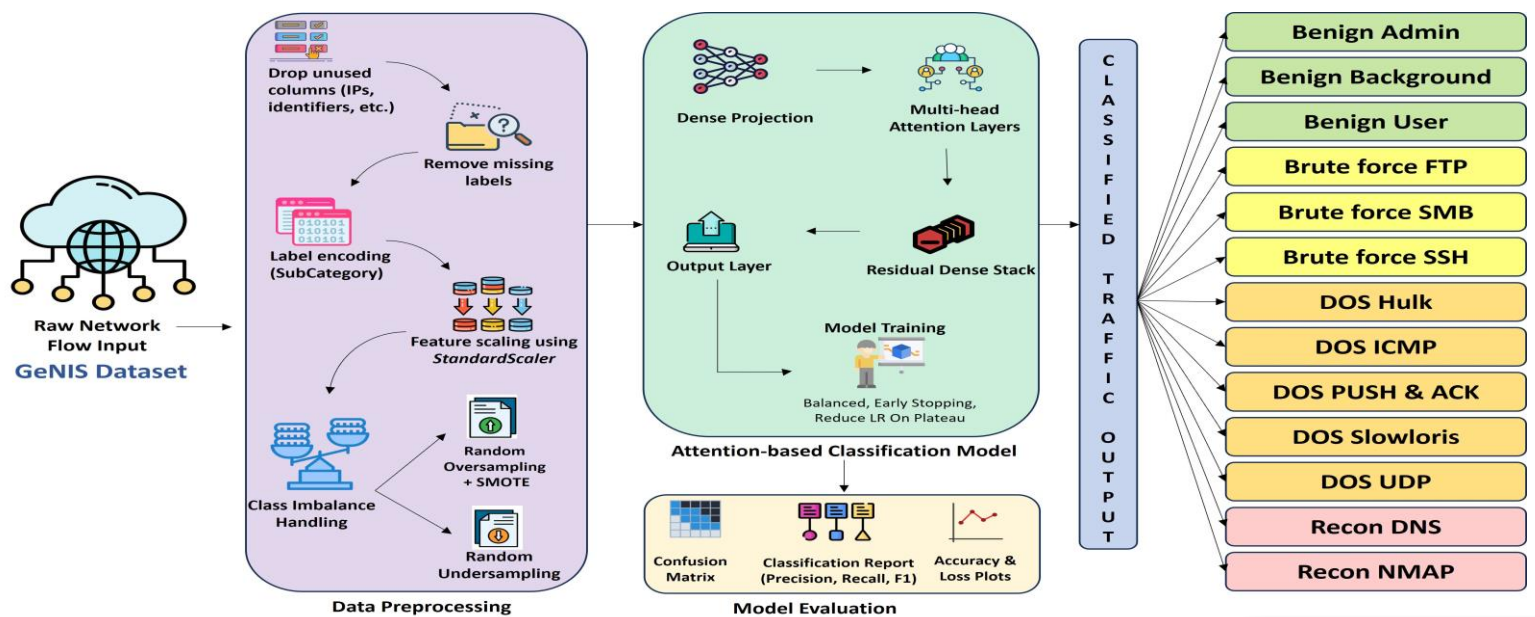
Relevant Publication: Akshara Sharma, Nishat Fatima, Pavel Sikora, Vojtech Myska, Jakub Frolka, Malay Kishore Dutta “MultiFlipFormer: A Multimodal Transformer for Emotion Flip Reasoning and Instigator Detection in Therapeutic Conversations” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, Publisher: IEEE Xplore Digital Library.

AI on Guard: Dynamic Deep Networks for Cyber Threat Detection

A Multi-Head Attention and Residual Dense Network with Dynamic Sampling for Fine-Grained Network Intrusion Classification

Key Highlights:

- Proposes a deep learning-based intrusion detection framework combining Multi-Head Self-Attention (MHSA) and Residual Dense Blocks (RDBs) for fine-grained attack classification.
- Effectively addresses class imbalance using a dynamic sampling strategy with SMOTE oversampling and random under-sampling.
- Captures complex feature dependencies and ensures stable gradient flow for deep network training on imbalanced flow-based datasets.
- Evaluated across four temporal windows (5s, 10s, 30s, 60s), achieving 99.89% peak accuracy on the 10-second window.
- Demonstrates high recall on rare attack types (e.g., recon-dns, brute force-ftp), ensuring robust, fair, and adaptive real-time intrusion detection.



Relevant Publication: Neha Shukla, Rakesh Chandra Joshi, Malay Kishore Dutta, “A Multi-Head Attention and Residual Dense Network with Dynamic Sampling for Fine-Grained Network Intrusion Classification”. 16th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, Publisher: IEEE Xplore Digital Library

Student
Author :



Neha Shukla
USRF-2025 Fellow
Student, Amity University

“Redefining Cyber Defense with Intelligent Deep Learning — A Self-Attentive Network That Detects Even the Smartest Intrusions in Real Time.”

Foreign Collaboration with International Scientists



Radim Burget
Professor, Brno
University of Technology

1. Neha Shukla, Rakesh Chandra Joshi, Radim Burget, Martin Rosa, & Malay Kishore Dutta “A Multi-Head Attention and Residual Dense Network with Dynamic Sampling for Fine-Grained Network Intrusion Classification” 16th International Congress on Ultra Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, DOI:10.1109/ICUMT67815.2025.11268763, Publisher: IEEE Xplore Digital Library.



Neha Shukla
USRF-2025 Fellow
Student, Amity
University



Vojtech Schiller
Doctoral student and
junior researcher at Brno
University of Technology

2. Naman Tyagi, Rakesh Chandra Joshi, Srishti Das, Kunal, Schiller Vojtech, Jezek Stepan, Malay Kishore Dutta, “Multi-Domain Information-Theoretic Features and Kolmogorov Complexity for Lightweight Image Splicing Detection, 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, DOI:10.1109/ICUMT67815.2025.11268583, Publisher: IEEE Xplore Digital Library.



Naman Tyagi
B.Tech, CSE Student,
(2022-26)
Amity University



Stepan Jezek
PhD Student at Brno
University of
Technology

3. Devansh Pandey, Rakesh Chandra Joshi, Anzhelika Mezina, Radim Burget and Malay Kishore Dutta, “Self-Attention U-Net with Residual Bottleneck for High-Quality CT to MRI Image Translation” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, DOI:10.1109/ICUMT67815.2025.11268631, Publisher: IEEE Xplore Digital Library.



Srishti Das
B.Tech, CSE Student,
(2022-26)
Amity University



Anzhelika Mezina
AI researcher, Brno
University of Technology

4. Naman Tyagi, Rakesh Chandra Joshi, Shristi Das, Pavel Sikora, Vojtech Myska, Malay Kishore Dutta, “Reinforcement Learning for Mathematical Reasoning in Small-Scale Language Models with Structured Policy Optimization” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, DOI:10.1109/ICUMT67815.2025.11268643, Publisher: IEEE Xplore Digital Library.



Devansh Pandey
USRF-2025 Fellow
Student, Amity
University



Pavel Sikora
AI/ML Researcher &
Developer, Brno
University of Technology

5. Akshara Sharma, Nishat Fatima, Pavel Sikora, Vojtech Myska, Jakub Frolka, Malay Kishore Dutta “MultiFlipFormer: A Multimodal Transformer for Emotion Flip Reasoning and Instigator Detection in Therapeutic Conversations” 16th International Congress on Ultra-Modern Telecommunications and Control Systems and Workshops (ICUMT), 2025, Italy, DOI:10.1109/ICUMT67815.2025.11268690, Publisher: IEEE Xplore Digital Library.



Akshara Sharma
B.Tech Student,
(2022-26)
Amity University

RESEARCH SEMINARS


AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in disruptive innovations in the area of AI.


Title: AI Agents & Startups




Research Seminar SERIES
 Seminar #27
 **THURSDAY**
11.09.2025
 **3:30 – 4:30PM**



Online Mode: 
SCAN or Visit
<https://tinyurl.com/3x878jbc>
 Offline Mode: ACAI Lab, G-16, E3 Block, Amity University, Noida.


Speaker:
Parth Upadhy
 Co-Founder & CTO @ FlyByHire
 Product Lead @ ScoobiesAI


AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE
With most advanced Supercomputing facility & involved in disruptive innovations in the area of AI.

Title: Computational Imaging Under Degradation: From Classical Image Dehazing to Deep Learning-Driven Turbulence and Phase Restoration.



Research Seminar SERIES
 Seminar #28
 **WEDNESDAY**
17.12.2025
 **3:30 – 4:30PM**

Online Mode: 
SCAN or Visit
<https://tinyurl.com/mrxjr3e7>
 Offline Mode: ACAI Lab, G-16, E3 Block, Amity University, Noida.

Speaker:
Dr. Avishek Kumar
 Amity Centre for Artificial Intelligence.



The Director of the Amity Centre of Artificial Intelligence (ACAI) delivered a talk on AI in Mental Health at the 21st Annual Conference of the Indian Association for Geriatric Mental Health, organized by King George's Medical University (KGMU), Lucknow on 12th September 2025.



The Director of the Amity Centre of Artificial Intelligence (ACAI) delivered a Keynote Talk in India International Science Festival (IISF 2025) in Panchkula, Chandigarh on 8th November 2025.



The Director of the Amity Centre of Artificial Intelligence (ACAI) delivered a talk in the Conference of Oncologists and Radiologists in ITC Gurgaon on 20th September 2025.

The Director of the Amity Centre of Artificial Intelligence (ACAI) delivered a Talk in All India Institute of Ayurveda on the topic "AI in Healthcare" on 19th November 2025.



Amity Students who won Second Prize in the Samsung EnnovateX AI Challenge 2025. mentored by Dr. Rakesh Chandra Joshi & Dr. Sneha Sharma, Amity Centre of Artificial Intelligence.



THE
FEDERAL
VOICE OF THE STATES



The contributions of the Director of the Amity Centre of Artificial Intelligence (ACAI), along with other Scientists from IIT and Jamia University was covered in an article published on 27th September 2025 on “How AI is revolutionising cancer research at Indian educational institutions” covering cancer diagnostics, making early detection more affordable and accessible in Tier II/III cities. From gallbladder to skin cancer, AI-driven models are pushing the frontiers of public health published by The Federal Voice of the State.

Read more: <https://thefederal.com/category/health/ai-cancer-research-indian-jamia-milia-iit-madras-iiit-hyderabad-208720>.



Manan Parmar and Priyansi Nayak, Students of Btech CSE, Amity University, Noida has won AIU Anveshan 2025 North Zone competition, Organized by the Association of Indian Universities.

Manomay Bundawala, Aditya Tripathy, Abhishek Kaushal, Anupam Mishra, Malay Kishore Dutta, "OtoscopeNet: An Efficient and Attention-Driven Deep Learning Framework for Robust Diagnosis of Ear Diseases" 5th International Conference on Advanced Network Technologies and Intelligent Computing, held at IIIT Gwalior



Manomay Bundawala, B.Tech, Student of Amity University, Noida, got the Industry Sponsored Registration Grant awards from ANTIC 2025. For presenting the paper titled: "OtoscopeNet: An Efficient and Attention-Driven Deep Learning Framework for Robust Diagnosis of Ear Diseases" Mentored by: Dr. Abhishek Kaushal, Amity Centre for Artificial Intelligence.



The Director of the Amity Centre of Artificial Intelligence (ACAI), along with others, participated in Emerging Science, Technology and Innovation Conclave, (ESTIC-2025)-- 3rd to 5th November 2025 held at Bharat Mandapam, New Delhi. in the Category of Senior S&T Leaders.

KrishakSakha: AI-Powered Solutions for Mustard and Wheat for Smart Crop Health

This AI-powered web platform offers three specialized tools designed to help farmers and agronomists detect crop infestation early and ensure healthier yields.

- AphidScan – Mustard Infestation Analyzer**
 - AI-powered tool to detect aphid infestation categories (mild to severe) or confirm healthy plants.
- PowderyScan – Mustard Infestation Analyzer**
 - AI-based detection of powdery mildew at six levels in mustard crops or identify healthy plants.
- WhiteEarScan – Wheat Infestation Analyzer**
 - AI tool for analyzing white ear severity (or confirming healthy crops) in wheat or confirming a healthy crop.



Amity Centre for Artificial Intelligence, Amity University Noida has signed an MoU with ICAR–NIBSM, Raipur to develop AI and computer vision solutions for agriculture, including early detection of mustard aphid and white ear disease in wheat. This collaboration aims to deliver practical, data-driven tools that enhance crop health, boost yields, and create real-world impact for farmers.



On September 16, 2023, Prof. M.K. Dutta, the Director of the Amity Centre for Artificial Intelligence, was on National Television as an expert to discuss on Gemini's new AI model, Nano Banana — exploring both its transformative potentials and the possible risks it brings if not handled responsibly.



Prof. M.K. Dutta, the Director of the Amity Centre for Artificial Intelligence, had the chance to join a podcast conversation on Happiness. When asked for my definition, my answer was simple: “Happiness is Freedom”.

PRISM-AI: A Flagship Student Innovation Initiative of ACAI

PRISM-AI (Program for Research and Innovation in Smart Minds through Artificial Intelligence) is a flagship mentorship and innovation initiative of the Amity Centre for Artificial Intelligence (ACAI), Amity University, Noida. The program is designed to identify, nurture, and empower high-potential students with a strong inclination towards artificial intelligence, research, and innovation.

Anchored in ACAI's vision to advance AI education and research across disciplines, PRISM-AI offers a rigorous, research-oriented, and hands-on learning experience that goes beyond traditional classroom instruction.



The flyer features a central image of a person sitting at a desk in a futuristic, glowing blue and purple digital environment with a large brain graphic. Text elements include the Amity University logo, 'AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE', 'POWERED WITH MOST ADVANCED SUPERCOMPUTING FACILITY', 'ADVANCED AI MENTORSHIP PROGRAM', 'PRISM-AI: (Program for Research and Innovation in Smart Minds through AI)', 'Call for Applications: Advanced AI Mentorship Program PRISM-AI (Even Semester 2026)', 'Eligibility: Who can Apply?' (listing B.Tech students from various branches), 'Selection Process' (Written Test / Interview), 'Deadline: 05th December 2025', a QR code, and contact information for ACAI Lab.

AMITY AMITY CENTRE FOR ARTIFICIAL INTELLIGENCE

POWERED WITH MOST ADVANCED SUPERCOMPUTING FACILITY

ADVANCED AI MENTORSHIP PROGRAM

PRISM-AI :
(Program for Research and Innovation in Smart Minds through AI)

Call for Applications: Advanced AI Mentorship Program PRISM-AI (Even Semester 2026)

Eligibility: Who can Apply?

- B.Tech Students from 2nd Year or 3rd Year from all branches (CSE, AI, Bio-Technology, IT, ECE, Mechanical, Civil, EEE, Aerospace etc.) from Amity University, Noida.

Selection Process

Written Test / Interview (See website for details)

Deadline: **05th December 2025**

TO APPLY SCAN THE QR CODE

The Mentorship Program is free.

For details visit amity.edu/noida/acai
Venue : ACAI Lab, E-3 Block, G-16, Amity University, Sector-125, Noida

Tel : +91-9599195631
E-mail : ai@amity.edu

Selected students work under the close mentorship of ACAI faculty and domain experts, gaining exposure to cutting-edge areas such as machine learning, deep learning, computer vision, generative AI, and large language models.

PRISM-AI follows a competitive selection process involving a written test and interview and is offered free of cost, reflecting ACAI's commitment to accessible, high-quality AI education. The program emphasizes end-to-end problem solving, encouraging students to conceptualize, design, and implement AI solutions addressing real-world challenges.

A key highlight of PRISM-AI is its project-centric approach, where participants undertake impactful AI projects evaluated by expert juries. This structure fosters a strong research mindset, innovation, teamwork, and technical depth, preparing students for advanced research, industry engagement, and global AI careers.

Through PRISM-AI, ACAI continues to strengthen its role as a visionary and enabling AI centre, building a robust ecosystem that empowers students, promotes research excellence, and contributes meaningfully to the responsible development and application of artificial intelligence.

GLIMPSE OF PRISM-AI PROJECT DISPLAY





AMITY
UNIVERSITY
--NOIDA (DELHI NCR)--



**AMITY CENTRE FOR
ARTIFICIAL
INTELLIGENCE**

AI FOR ALL

Pioneering the Fusion of AI with Every Discipline

At the Amity Center for Artificial Intelligence, we envision providing world-class education that transforms individuals into intellectual, empathetic, and responsible AI practitioners and citizens. We aspire to create a collaborative ecosystem uniting knowledge institutions, industry partners, government agencies, and community stakeholders to develop both exceptional talent and groundbreaking technology in artificial intelligence.

Powered by NVIDIA DGX2 A100 – one of the world’s most powerful AI systems, ACAI offers unmatched computational strength with 16 A100 GPUs delivering 10 PetaFLOPS of processing power. With 640 GB of GPU memory enhanced by Tensor Core GPUs, advanced AI stacks for seamless training and deployment, and high-speed servers for maximum efficiency, ACAI stands among the finest AI computing facilities globally.

