

Jothika K

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Education

Amrita Vishwa Vidyapeetham

Coimbatore, India

B.Tech in Computer Science with Specialization in AI / CGPA: 9.04/10

August 2023– Present

Related Coursework : Object Oriented Programming , Data Structures and Algorithms , Mathematics for Computing , Discrete Maths , Computer Networks , Operating System

AISSCE

Coimbatore, India

Suguna Pip School | Grade: 9.3

2021-2023

ICSE

Nilgiris, India

Nazareth Convent High School and Junior college | Grade: 9.26

2011-2021

Projects

Remote Sensing Satellite Image Classification with CNN enhanced with Attention Mechanisms

- Developed a remote sensing satellite image classification system using CNN architectures (MobileNetV2, ResNet50, DenseNet-121) enhanced with attention mechanisms like Convolutional Block Attention Module and Squeeze-and-Excitation Block
- Achieved notable test accuracies of 95.39% with MobileNetV2-CBAM, 93.69% with ResNet50-SEBlock, and 89.52% with DenseNet-121-SEBlock, demonstrating the effectiveness of integrating attention mechanisms.
- Successfully combined CNN models with attention mechanisms to focus on essential features, improving overall classification accuracy for complex remote sensing tasks.

Real-Time Women's Safety Application

- Developed "**AVAL**", a real-time women's safety mobile application using Flutter (Dart) for frontend, Flask (Python) for backend, and Firebase for authentication.
- Implemented Safety Risk Scoring using YOLO, Travel Safety Scoring using K-Means clustering, and real-time location tracking with Geolocator and Geofencing APIs.
- Integrated Twilio for SOS alerts, predictive analytics for crime hotspot detection, and safer route suggestions based on live crime data.

AI-Driven Energy Saving Advisor for Smart Homes

- Created an AI-driven application to evaluate and optimize the energy efficiency of household appliances, providing personalized recommendations for energy savings.
- Developed a user-friendly Streamlit-based web app, integrated with LangChain and Google PaLM API, to deliver real-time energy optimization suggestions .

Technical Skills

Languages: Python, Java, C,C++, JavaScript, SQL, HTML5, CSS3

Frameworks: ReactJS, TensorFlow, PyTorch, Streamlit, Langchain, Bootstrap

Achievements

Finalist in WWT All India Women Hackathon: Secured a spot among the top teams out of 120+ participants in the *All India Women Hackathon* organized by World Wide Technology

Finalist in Amrita Gender Tech x Gen AI: Secured a spot among the top 10 teams in the Gender Tech Hackathon conducted by Amrita Vishwa Vidyapeetham

Leadership

Member of Research & Development Vertical of AI Club , Amrita Vishwa Vidyapeetham , Coimbatore