KALANITHI T

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EDUCATION

M.Sc Artificial Intelligence and Machine Learning, Coimbatore Institute of Technology — July 2019 - Present
CGPA: 7.89 (Till Sem 7)

HSC, Goverment Boys Higher Secondary School — June 2018 - March 2019
Percentage: 76%

SKILLS

Programming Languages	Intermediate - Python, C , HTML, CSS. Beginner - Java, Javascript
Database	MySQL, MongoDB
Frameworks	Scikit-Learn, TensorFlow, OpenCV, Flask

EXPERIENCE

Project Trainee — July 2022 - Dec 2022
Bosch Global Software — *Coimbatore, India*

- Designed web app using NLP and ML to generate specifications of raw test samples from raw inputs, utilizing Python, MySQL, HTML, CSS.
- Utilized PostmanAPI and Bitbucket to enhance collaboration and streamline the delivery of the groundbreaking "Testspec Generation"project
- Made significant contributions to diverse Machine Learning initiatives, adding a touch of opulence to each project.

PROJECTS

Comparative Analysis on Spam Classification Models.

- Devised diverse SMS categorization models distinguishing SPAM and HAM with exceptional accuracy, employing cutting-edge techniques for superior results.
- Executed comprehensive analysis of classical Machine Learning algorithms encompassing Naive Bayes, Decision Tree, and Logistic Regression, providing insights that enriched overall understanding of model performances.
- Conducted rigorous comparative assessment of advanced deep learning architectures, including Dense Neural Network, LSTM, and Bidirectional LSTM, yielding a remarkable 98.9% accuracy with the Bidirectional LSTM model.

Adversarial Attacks on Machine Learning Model.

- Investigated adversarial attacks in computer vision, introducing malicious perturbations to benign inputs, and achieved a robust defense model with 90% attack success reduction.
- Developed and evaluated denoising techniques for enhancing model resilience, resulting in an impressive 85% accuracy retention against adversarial attacks.
- Quantified improved model reliability by reducing misclassifications by 70%, contributing to more secure and dependable computer vision systems.

Image Classification With Zero Shot Learning

- Implemented Zero Shot Learning image classifier using pre-trained VGG16 on cifar100 with cosine similarity, achieving 90%+ test accuracy.
- Engineered image-to-vector transformation, enabling accurate label prediction. Enhanced model efficiency, leading to faster inference.

PUBLICATIONS

- Published our projet "Enhancing Image Classification: A Metaheuristic-Driven Approach" in 4th congress on Intelligent Systems (CIS 2023) organized by Department of Computer Science and Engineering, CHRIST(Deemed to be University, Kengeri Campus and All India Council for Technical Education(AICTE).

OTHER WORKS

- Led Melinia 2023 Open Expo organization, leading teams to excel in project development and delivery.