Ahamed Dhahlan

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SUMMARY

Dynamic ML Engineer skilled in Python, TensorFlow, and scikit-learn. Excels in crafting innovative solutions for NLP, computer vision, and predictive analytics. Collaborative team player committed to staying at the forefront of ML advancements.

EDUCATION

Bachelor of Science in Engineering (Honors) - Electrical and Information March 2021 Present
University of Ruhuna, Galle, Sri Lanka

- ✓ *Related coursework*: Digital Signal Processing, Machine Learning, Computer Vision, Embedded Systems, Data Structures and Algorithms, Programming Fundamentals, Linear Algebra, Calculus, Probability and Statistics.

GCE Advanced Level and GCE Ordinary Level January 2017 August 2019
Zahira College, Kalmunai, Sri Lanka

PROJECTS

LipLexa: AI-powered Lip Reading System for Videos January 2024

- ✓ Developed a state-of-the-art lip reading application using TensorFlow and OpenCV, achieving a 70% increase in accessibility for hearing-impaired individuals.
- ✓ Implemented an advanced algorithm for accurate speech interpretation from visual cues, resulting in a 50% increase in detection reliability. This technology has applications in security, assistive technology, and media analysis.
- ✓ **Technology Used**: Python, TensorFlow, OpenCV, Matplotlib

Singlish GPT: Language Model for Sinhala in English Letters July 2024

- ✓ Developed and trained a GPT model for Singlish text processing and generation using mT5 and various libraries, demonstrating proficiency in natural language processing (NLP).
- ✓ **Technology Used**: Python, Hugging Face, transformers, PyTorch, Aksharamukha, Google

RealVision+: An Advanced Face and Expression Analysis Application September 2023

- ✓ Created a cutting-edge face recognition app capable of accurately identifying individuals and predicting their gender in real-time, demonstrating expertise in computer vision.
- ✓ Achieved a 90% accuracy rate in face recognition, highlighting a strong understanding of image processing techniques.
- ✓ **Technology Used**: Python, ML, OpenCV, Matplotlib

Intrusion Detection System using Machine Learning: Enhancing Network Security July 2024

- ✓ Designed and implemented an Intrusion Detection System (IDS) leveraging machine learning techniques to detect and mitigate network intrusions.

- ✓ Developed real-time monitoring and alerting capabilities, providing effective security measures.
- ✓ Utilized both supervised and unsupervised learning approaches to analyze network traffic and identify anomalous behavior, ensuring comprehensive security coverage.
- ✓ Achieved a 95% accuracy rate in identifying malicious network activity.
- ✓ **Technology Used**: Python, scikit-learn, TensorFlow, Flask/Django, pandas, numpy, SQL

CodeForgeAI: Code Generation from Webpage Screenshots May 2024

- ✓ Built a tool that generates code from webpage screenshots with real-time previews, enhancing coding efficiency and productivity.
- ✓ Successfully integrated computer vision techniques with code generation capabilities, demonstrating a strong understanding of both areas.
- ✓ **Technology Used**: Python, OpenCV, TensorFlow, Flask/Django, JavaScript, HTML/CSS

GloSign: Empowering Deaf Communication February 2024

- ✓ Designed and developed a sign language translator achieving 96% accuracy in gesture recognition, empowering deaf individuals to communicate effectively.
- ✓ Integrated gesture recognition, speech-to-text algorithms, and wearable devices, demonstrating expertise in embedded systems development.
- ✓ **Technology Used**: Python, C++, Arduino

MLEduZone: An Innovative E-learning Platform - Group Project July 2024

- ✓ Developed a comprehensive e-learning platform that includes courses, projects, and interactive learning elements.
- ✓ Utilized React for frontend development and Django for backend development, highlighting proficiency in web development technologies.
- ✓ Successfully integrated Python and Django to handle server-side logic and manage database interactions efficiently, demonstrating a strong understanding of web application development.
- ✓ **Technology Used**: React, Node.js, Python, Django, JWT token, Machine Learning

WeedSense: Automated Weed Removal February 2024

- ✓ Designed and implemented an automated weed detection system achieving 93% accuracy using SVM classification on preprocessed image data.
- ✓ Successfully integrated image processing techniques with machine learning algorithms, showcasing expertise in computer vision and machine learning.
- ✓ **Technology Used**: Python, Arduino, ML, Sensors

GestureGear: Hand-Gesture Controlled Car Racing Game January 2024

- ✓ Developed a real-time hand tracking and gesture recognition system, achieving a 40% increase in user interaction accuracy and enhancing the overall gameplay experience.
- ✓ Implemented a user-friendly interface and intuitive controls, demonstrating strong programming and game development skills.
- ✓ **Technology Used**: Python, OpenCV, Mediapipe, Matplotlib

TECHNICAL SKILLS

- Languages: C/C++, Python, Javascript
- Libraries: Huggingface, Transformers, Pandas, Numpy, Matplotlib, Seaborn, TF-IDF, TensorFlow, PyTorch, Pygame, Tkinter
- Web Dev Tools: Nodejs, VScode, Git, Github

- Frameworks: ReactJs, Django
- Databases: MongoDb, Firebase, Relational Database(mySql), Apache Spark
- Soft Skills: Problem Solving, Self-learning, Presentation, Adaptability, Critical Thinking, Teamwork, Communication

CERTIFICATES & AWARDS

- ✓ Certificate in Introduction to Web Development with HTML, CSS, JavaScript
- ✓ Certificate in Introduction to Cloud Computing
- ✓ Certificate in Introduction to Deep Learning & Neural Networks with Keras
- ✓ Certificate in Machine Learning with Python
- ✓ Certificate in Python for Data Analysis: Pandas & NumPy
- ✓ edX Verified Certificate for Data Science: Machine Learning
- ✓ Certificate in SystemVerilog for ASIC/FPGA Design & Simulation
- ✓ Participant, Commercial Bank Hackathon, Commercial Bank (June 2024)
- ✓ 2nd Runners up, Haxtreme 2.0, IEEE Society (November 2023)
- ✓ Top 10%, AWS Deep Racer, AWS (August 2023)

REFERENCES

References available upon request.

- ✓ Dr. Kushan Sudheera
- ✓ Senior Lecturer
- ✓ Department of Electrical and Information Engineering
- ✓ Faculty of Engineering
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