Ahamed Dhahlan

SUMMARY -

Dynamic Engineering student with a strong foundation in Python, JavaScript, Django, and Next.js, and a keen interest in developing scalable and distributed applications. Experienced in full-stack development, APIs, and machine learning. Adept at designing high-performance components and passionate about contributing to innovative solutions in customer engagement. Committed to producing high-quality, maintainable, and secure software.

EDUCATION –

Bachelor of Science in Engineering (Honors) - Electrical and Information

March 2021 Present

University of Ruhuna, Galle, Sri Lanka

- ✓ GPA: 3.8/4.0
- √ Related coursework: Data Structures Algorithms, Operating Systems, Machine Learning, Database, Artificial Intelligence, Natural Language Processing, and Computer Vision.

GCE Advanced Level and GCE Ordinary Level

January 2017 August 2019

Zahira College, Kalmunai, Sri Lanka

- ✓ GPA: 85
- ✓ Related coursework: Mathematics, Physics, Chemistry, and English Literature.

PROJECTS -

EduZone: An Innovative E-learning Platform

- ✓ Developed a comprehensive e-learning platform that includes courses and projects, utilizing React for frontend development and django for the backend.
- \checkmark Integrated Python and Django to handle server-side logic and manage database interactions efficiently.
- ✓ Technology Used: React, Node.js, Python, Django, JWT token, Machine Learning

CodeForgeAl: Code Generation from Webpage Screenshots

- ✓ Created a tool to generate code from webpage screenshots with real-time previews, enhancing coding efficiency.
- ✓ Technology Used: Python, OpenCV, TensorFlow, Flask/Django, JavaScript, HTML/CSS

Intrusion Detection System using Machine Learning: Enhancing Network Security

- √ Trained an advanced Intrusion Detection System (IDS) leveraging machine learning techniques to detect and mitigate network intrusions, providing real-time monitoring and alerting capabilities.
- √ Utilized both supervised and unsupervised learning approaches to analyze network traffic and identify anomalous behavior, ensuring comprehensive security coverage.
- √ Technology Used: Python, scikit-learn, TensorFlow, Flask/Django, pandas, numpy, SQL

Singlish GPT: Language Model for Sinhala in English Letters

- ✓ Implemented a GPT model for Singlish text processing and generation using mT5 and various libraries.
- ✓ Technology Used: Python, Hugging Face, transformers, PyTorch, Aksharamukha, Google

LipLexa: AI-powered Lip Reading System for Videos

- √ Created a state-of-the-art lip reading application with TensorFlow and OpenCV; increased accessibility for hearing impaired by 70% and achieved 40% faster processing speeds
- ✓ Developed an advanced algorithm for accurate speech interpretation from visual cues, with applications in security, assistive technology, and media analysis, resulting in a 50% increase in detection reliability.
- √ Technology Used: Python, TensorFlow, OpenCV, Matplotlib

RealVision+: An Advanced Face and Expression Analysis Application

- ✓ Developed a cutting-edge face recognition app capable of accurately identifying individuals and predicting their gender in real-time.
- ✓ Technology Used: Python, ML, OpenCV, Matplotlib

GestureGear: Hand-Gesture Controlled Car Racing Game

- ✓ Engineered an advanced real-time hand tracking and gesture recognition system, achieving a 40% increase in user interaction accuracy and elevating overall gameplay experience
- ✓ Technology Used: Python, OpenCV, Mediapipe, Matplotlib

GloSign: Empowering Deaf Communication

- ✓ Developed a sign language translator achieving 96% accuracy in gesture recognition, facilitating communication for the deaf.
- ✓ Integrated gesture recognition, speech-to-text algorithms, and wearable devices.
- √ Technology Used: Python, C++, Arduino, ML

SKILLS -

Languages

- C/C++: Proficient in C++ for embedded systems programming and object-oriented design. Utilized C++ to develop GloSign, a sign language translator, demonstrating expertise in real-time applications.
- Python: Extensive experience in Python for data analysis, machine learning, and web development. Used Python to build various projects like CodeForgeAI, Intrusion Detection System, and Singlish GPT.
- JavaScript: Skilled in JavaScript for front-end development and interactive web applications. Utilized JavaScript to build EduZone, a comprehensive e-learning platform.
- SQL: Proficient in SQL for database management and data manipulation. Applied SQL in the Intrusion Detection System to store and analyze network traffic data.

Libraries

- Huggingface: Expertise in Hugging Face for natural language processing, leveraging its libraries for the Singlish GPT project.
- Transformers: Experienced in using Transformers for natural language understanding and generation, as demonstrated in the Singlish GPT project.
- Pandas: Proficient in Pandas for data manipulation and analysis, utilized extensively in projects like the Intrusion Detection System.

- Numpy: Experienced in using Numpy for numerical computations and array operations, applied in various projects, including the Intrusion Detection System.
- Matplotlib: Skilled in Matplotlib for data visualization and plotting, utilized in various projects, such as LipLexa and RealVision+.
- Seaborn: Familiar with Seaborn for creating statistically informative and visually appealing plots, used in projects requiring data exploration.
- TensorFlow: Expertise in TensorFlow for machine learning and deep learning applications. Developed the LipLexa project using TensorFlow for lip reading.
- PyTorch: Proficient in PyTorch for deep learning and machine learning applications. Utilized PyTorch in the Singlish GPT project for natural language processing.

Web Development Tools

- Node.js: Experienced in Node.js for building server-side web applications. Utilized Node.js to handle the backend of the EduZone project.
- VScode: Proficient in VScode for coding and development, utilizing its features to enhance productivity across projects.
- Git: Experienced in Git for version control and collaborative development. Used Git to manage code repositories for all projects.
- GitHub: Active GitHub user for sharing code, collaborating on projects, and managing repositories.

Frameworks

- React.js: Skilled in React.js for building dynamic and responsive user interfaces. Developed the front-end of EduZone using React.js.
- Django: Experienced in Django for building web applications and APIs. Used Django to manage the backend of the EduZone project.
- Next.js: Familiar with Next.js for building performant and SEO-friendly web applications.
- FastAPI: Experienced in FastAPI for building high-performance web APIs.
- .NET: Basic understanding of .NET for developing applications.

Databases

- MongoDB: Experienced in MongoDB for NoSQL database management and data storage.
- Firebase: Familiar with Firebase for real-time database and cloud services.
- MySQL: Skilled in MySQL for relational database management and data querying. Used MySQL for data storage in the Intrusion Detection System.
- Apache Spark: Basic understanding of Apache Spark for distributed computing and data processing.

Development Practices

- ✓ Implemented TDD and BDD for efficient testing and development.
- ✓ Conducted regular code reviews to ensure code quality and maintainability.
- \checkmark Utilized unit testing frameworks to ensure the functionality of individual components.

Relevant Coursework

✓ Completed courses in Data Structures Algorithms, Operating Systems, Machine Learning, Database, Artificial Intelligence, Natural Language Processing, and Computer Vision, gaining a strong foundation in these essential areas.

Soft Skills

✓ Demonstrated strong problem-solving abilities through successful project completion.

- ✓ Showcased a commitment to self-learning by actively seeking new technologies and methodologies.
- ✓ Developed excellent communication and presentation skills through participation in conferences and workshops.
- √ Possess adaptability and flexibility, able to adjust to changing project requirements.
- ✓ Demonstrated critical thinking skills by analyzing problems and developing effective solutions.

CERTIFICATES —

- √ 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

ACHIEVEMENTS

- ✓ Participant, Commercial Bank Hackathon, Commercial Bank (June 2024)
- ✓ 2nd Runners up, Haxtreme 2.0, IEEE Society (November 2023)
- √ Top 10%, AWS Deep Racer, AWS (Augest 2023)

EXPERIENCE ----

PUBLICATIONS —

CERTIFICATIONS & AWARDS —

- √ XYZ Scholarships (Specify the name of scholarships you received)
- √ Received ABC Scholarship Award for the academic session 20XX-20XX (Specify the name of the scholarship and year)
- ✓ Certificate of Accomplishment, Awarding Body (28 Oct 20XZ) (Specify the certificate and the awarding body)
- √ Certificate of Merit in Masters (2019)
- √ Certificate of Merit in Bachelors (2017)

REFERENCES ----

References available upon request.