Ahamed Dhahlan

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LinkedIn GitHub

SUMMARY

Experienced data scientist and machine learning engineer with a strong focus on transformers and LangChain agentic models. Skilled in developing and deploying advanced natural language processing (NLP) solutions, leveraging frameworks like PyTorch, Hugging Face Transformers, and LangChain to create intelligent, context-aware systems. Proficient in Python, R, and SQL, with hands-on experience in building end-to-end machine learning pipelines, predictive modeling, and data-driven decision-making. Adept at delivering scalable solutions that drive innovation and enhance user engagement.

EXPERIENCE

Software Engineer Intern Sep 2024 – Present
Paralegal.lk, [City, Country – Add if known]

- Integrated payment solutions into the website using PayHere services and React, enhancing transaction capabilities.
- Conducted network analysis of legal case citations, significantly improving the websites search engine efficiency by 200%.
- Collaborated on diverse web development tasks, emphasizing front-end functionality and optimizing user experience.

Electrical and Information Engineer Intern August 2023 – January 2024
Mahaweli Authority of Sri Lanka, Victoria, Sri Lanka

- Led the design and implementation of a cutting-edge real-time dam simulation system, meticulously crafted to cater to the requirements of the Victoria Dam Control Room and Observation Platform.
- Implemented a Dam Gate opening prediction app.

PROJECTS

Singlish GPT: Language Model for Sinhala in English Letters

- Developed a GPT model for Singlish text processing and generation using mT5 and achieved 92% accuracy in text generation tasks.
- **Technology Used:** Python, Hugging Face, transformers, PyTorch, Aksharamukha, Google

RESEARCH PAPERS

Coexistence Mechanism Between eMBB and URLLC in 5G Wireless Networks

- Conducted a research study on the coexistence of eMBB and URLLC traffic in 5G wireless networks, focusing on efficient resource allocation strategies.
- Developed synthetic datasets for eMBB traffic (Python, up to 4 concurrent users over 1ms) and URLLC traffic (Matlab, Poisson process with 7 mini-slots per 1ms).
- Proposed and implemented a puncturing scheme to minimize the impact of URLLC traffic on eMBB users by prioritizing users with the lowest MCS and iBLER values.
- Designed and trained two neural networks to automate the selection process, testing four architectures (Baseline, Dropout NN, BatchNorm NN, Deep NN), with Deep NN achieving the best performance.
- **Technology Used:** Python, Matlab, Neural Networks, Machine Learning, 5G Wireless Networks, Data Analysis

EDUCATION

Bachelor of Science in Engineering (Honors) - Electrical and Information 2021 – 2025
University of Ruhuna, Galle, Sri Lanka
GCE Advanced Level and GCE Ordinary Level 2017 – 2019
Zahira College, Kalmunai, Sri Lanka

SKILLS

Programming Languages

- C, C++, Python, JavaScript

Data Science/ML Libraries

- TensorFlow, PyTorch, scikit-learn, NumPy, Pandas

Machine Learning Skills

- NLP, Computer Vision, Model Training, Hyperparameter Tuning

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 August 2023

REFERENCES

References available upon request.