



Patalee Narasinghe

B.Sc. Engineering Honours
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 GitHub Profile

 LinkedIn Profile

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 Personal portfolio

Education

University of Moratuwa

Bachelor of Science (Hons) in Engineering, Computer Science and Engineering

Aug. 2022 - Present

CGPA: 3.58

Central College Kuliyaipitiya

GCE Advanced Level - Physical Science Stream - 3A passes

Jan. 2015 - Aug. 2020

Projects

Sentiment Analysis and Product Improvement (Ongoing) 2024

I am working on a sentiment analysis project focused on analyzing Amazon product reviews to classify them as positive or negative. The project also aims to extract recurring pain points from negative reviews and provide actionable recommendations for product improvements. It involves the use of BERT models for classification, LSTM for emotion detection, large language models (LLMs) for generating recommendations, and explainable AI (XAI) techniques to clarify the model's decisions.

Technologies: Python, Tensorflow.keras, Hugging Face Transformers, MySQL, MongoDB, Flask, React.js, Express.js

Ecommerce platform (Web) 2023

In our third semester Database Management System course, we developed a Ecommerce platform for a company selling toys and electronics. This web-based application was designed to handle various functionalities such as login, registration of users, authorization, cart handling, sessions etc.

Technologies: Flask, HTML, CSS, Jinja, MySQL

Voice Translator and Changer 2022

Developed a voice translator and changer application using Python that converts spoken language into text then Japanese, and converts it into a character's voice. Implemented a basic UI with PyQt5 and asynchronous API calls for real-time processing, enhancing my skills in API integration and asynchronous programming

Technologies: Python libraries(asyncio, PyQt5, pyaudio), AI apis (Chatgpt, Deepgram, Voicevox)

RPAL Interpreter 2024

An interpreter for the functional programming language RPAL consisting of a lexical analyzer, parser, and a CSE machine. The interpreter can execute a given RPAL program by constructing the abstract syntax tree, standardizing the AST, and evaluating the program to get the output.

Programming Language: Java

In our second semester's Computer Organization and Digital Design module, we embarked on a project to design a 4-bit microprocessor. This processor was capable of performing essential operations such as addition, subtraction, left shift, right shift, and negation.

Technologies: VHDL, Xilinx Vivado

Core Skills

Machine Learning	Numpy, Pandas, Scikit learn, Matplotlib, Polaris, Pytorch
Web Development	HTML, CSS, React, Next.js, Node.js, Express.js, Flask ,Fastapi
Database Management	MySQL, MongoDB
Programming Languages	C++, Python, Java, JavaScript, TypeScript
Tools and Software	Git, AWS, GCP, Sagemaker, Huggingface, Docker, Xilinx Vivado

Online Certifications

- **Intermediate Machine Learning Kaggle course** *Aug 2024*
- **AWS Academy Graduate - AWS Academy Machine Learning Foundations** *Feb 2024*
- **Intro to Machine Learning Kaggle course** *Jan 2024*
- **Intermediate Python Immersive Training Udemy** *Oct 2021*

Competitions & Achievements

- **Runners up IESL techno hackathon 2023**
- **6th place at SLIIT bashway 2023**
- **Finalist in Cypher Hackathon 2023 and 24**
- **Finalist in SLIIT codefest 2018**
- **Merit award in Astronomy and Astrophysics Olympiad (SLAAO)2016**
- **Bronze medals in Junior Astronomy Olympiad (SLJAO) 2014,2015**

References

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