SAVINDI WIJENAYAKA

Machine Learning Engineer & Researcher

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Summary

A Machine Learning Engineer and a Researcher with 2+ years of experience in applied machine learning research and production-grade cloud-native application development. Currently working towards a Ph.D. in Bioengineering to contribute to the advancement of healthcare with the aid of Artificial Intelligence (AI). Seeing someone's face light up with a smile due to a product I helped create brings me ultimate satisfaction as an AI and tech enthusiast.

Education

Ph.D. in Bioengineering

University of Auckland Dec 2021 - Present Auckland, New Zealand

- Analyse microstructures of upper gastrointestinal (GI) sphincters and develop computational models using novel imaging techniques and deep learning to improve understanding of GI disorders and benefit in silico experiments.

B.Sc. (Hons.) in Software Engineering

University of Kelaniya Feb 2016 - March 2020 Kelaniya, Sri Lanka

- Specialised in Data Science and Net-centric application development
- Attained a GPA of 3.96 out of 4.00, obtaining a First Class.

Experience

Machine Learning Engineer

WSO2 Sept 2020 - Nov 2021 Colombo, Sri Lanka

- WSO2 is one of the world's leading open-source integration vendors. Choreo is its latest product providing an AI-enhanced integrated platform as a service.
- Researched, engineered and deployed the initial phase of Choreo's AI-assisted testing feature, using Python, Keras, Flask, Kubernetes and Azure DevOps pipelines.
- Architected, developed and deployed Choreo's AI-based anomaly detector with two other engineers, using Azure solutions, Ballerina, and Python, while adhering to security best practices, scaling requirements, and optimised resource usage.
- Analysed Ballerina Language Server performance and identified the cause of a memory leak using JMeter and Eclipse Memory Analyser (MAT), which helped in the optimisation of resources in Choreo.
- Contributed to automating the performance testing of Choreo by creating a library and a pipeline for system metrics collection using Python, Kusto, Seaborn, and Azure DevOps pipelines.

Software Research Engineer (Intern)

Pearson Sept 2018 - Sept 2019 Colombo, Sri Lanka

- Pearson is a leading Education provider, offering curriculum materials, multimedia learning tools, and testing programs to help educate people worldwide.
- Collaborated with two other engineers to create the minimum viable product of AI-based Public Speaking Evaluator Service (APSES) while contributing to emotion detection and speech analysis features, using Python, Keras, OpenCV, Kaldi and Flask.
- Investigated on Question and Answering and built the minimal viable product of a Chatbot, which answers students' questions based on Pearson books and other documentation, using a modified version of the Bi-Directional Attention Flow (BiDAF) model, Python and Django.
- Researched and engineered the minimal viable product which automatically classifies flashcards created by the system or users under available topics, using the Universal Language Model Fine-Tuning (ULMFiT) model, Python and Django.

Certifications

- AI for Medical Diagnosis
  DeepLearning.AI May 2021
- Deep Learning Specialisation
  DeepLearning.AI December 2020
- TensorFlow Developer Specialisation
  DeepLearning.AI July 2020

Skills

- **Knowledge Areas** — Deep learning (Vision & NLP)
- **Programming languages** — Python, Ballerina, Java SE, Bash
- **Frameworks and tools** — Flask, TensorFlow, Numpy, Pandas, Keras, Springboot, Git, Agile
- **DevOps** — Linux, Azure, Kubernetes, Docker, Kustomize, JMeter

Achievements

- Awarded as the 1st place team in SPARC FAIR codeathon 2022 organized jointly by SPARC Data and Resource Center and National Institutes of Health (NIH)
- Placements in Dean's List in all four academic years of B.Sc.
- Awarded black belt in Karate.
- Member (2016-2018) and women's team captain (2018) in the University of Kelaniya Karate team, winning national and inter-university medals with merits.
- Lead the Marketing and Communication function of AIESEC in University of Kelaniya as the vice president (2018) to increase the growth rate.
- Managed the financial and budgeting aspects as the organising committee finance lead in RealHack 2019 inter-university hackathon.
- Awarded as the 4th Place team in the DataStorm 2020 datathon organised by Octave (JKH Centre of Excellence for Big Data Analytics) and University of Moratuwa
- Became the 1st Runner Up team in National Youth Software Competition 2017 organised by UNDP-Sri Lanka.
- Achieved the Gold medal for Chess in Four Nations Championship 2019 organized by Pearson.
- Represented secondary school at the national level for Karate, Carrom, Kabbadi and as an Army Cadet.
- Held various leadership positions in the secondary school as a junior prefect, senior prefect and Karate captain.

Volunteer and Webinar hosting

- Member of the teaching team for Code In Place 2021, an online Python course offered by Stanford University during the COVID-19 pandemic.
- Guest speaker of IEEE Hobnobbers 2021, sharing knowledge on the topic "A dive into deep learning. "
- Guest speaker of Pie & AI Sri Lankan session, organised by DeepLearning.AI, on the topic "An Introduction to AI and Machine Learning - Sinhala. "

Languages

English
Sinhala

Last updated: July 19, 2024