SAVINDI WIJENAYAKA

Software Research Engineer (ML/DL)

@ savindi.narmada@gmail.com (+94) 711 935 816
phantomgrin.github.io @phantomgrin PhantomGrin savindi

WORK EXPERIENCE

Machine Learning Engineer

WSO2 Lanka (Pvt.) Ltd.

Sept 2020 – Present Colombo 03, Sri Lanka

- Working on diverse Research and Development tasks in Machine Learning and Deep Learning

Trainee Software Research Engineer

Applied Research & Development, Pearson Lanka (Pvt.) Ltd.

Sept 2018 – Sept 2019 Colombo 09, Sri Lanka

- Carried out diverse Research and Development tasks including Machine Learning and AWS POC development
- Technologies: Spring boot | Django | AWS | Git | Ansible | Trello

IT Assistant (Volunteer)

Anti-Filariasis District Unit

May 2015 – Oct 2015 Kalutara, Sri Lanka

Carried out IT based analysis tasks on samples collected by the Unit.

EDUCATION

B.Sc. (Hons.) in Software Engneering

University of Kelaniya

2016 - 2020 Kelaniya, Sri Lanka

- Domains: Data Science and Machine learning | Net Centric Application Development
- **CGPA - 3.96/4.00 (1st Class)**

CGMA (UK)

Chartered Institute of Management Accountants

2014 - Present

Current : Advance Deploma in Management Accounting

Physical Science (2014 A/L)

Visakha Vidyalaya, Colombo 05

2006 - 2014 Colombo 05, Sri Lanka

• Mathematics C • Chemistry B • Physics B • English A • General IT A

CERTIFICATIONS

Deep Learning Specialization

Deeplearning.ai/Coursera

August 2020 - December 2020

Specialization with 5 certifications conducted by Andrew Ng, Kian Katanforoosh and Younes Bensouda Mourri, covering in depth theory concepts in Deep Learning and Machine Learning. Evaluation of the students is done via graded assignments.

1. Neural Networks and Deep Learning (Completed: August 2020)
2. Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization (Completed: August 2020)
3. Structuring Machine Learning Projects (Completed: September 2020)
4. Convolutional Neural Networks (Completed: November 2020)
5. Sequence Models (Completed: December 2020)

DeepLearning.AI TensorFlow Developer Specialization

Deeplearning.ai/Coursera

May 2020 - July 2020

Professional Developer Specialization for practical Machine Learning and Deep Learning with 4 certifications conducted by Laurence Moroney. Evaluation of the students is done via graded assignments.

1. Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning (Completed: May 2020)
2. Convolutional Neural Networks in TensorFlow (Completed: May 2020)
3. Natural Language Processing in TensorFlow (Completed: June 2020)
4. Sequences, Time Series and Prediction (Completed: July 2020)

ACHIEVEMENT

Academic

- ***4th Place*** : DataStorm 2020 Datathon organized by Octave (JKH Centre of Excellence for Big Data Analytics) & University of Moratuwa
- ***1st Runner Up*** : HackaDev - Matara 2017 (National Youth Software Competition) organized by UNDP-Sri Lanka
- ***Semi-Finalist*** : UOJ Hack 2017 organized by University of Jaffna and UNDP-Sri Lanka
- ***Semi-Finalist*** : iHack 3.0 organized by University of Colombo School of Computing
- ***2nd Runner Up*** : SAIFA Business Challenge 2016 organized by University of Colombo
- ***Dean list Enlisted*** : 2014/2015 Academic Year, University of Kelaniya

Non-Academic

- ***Champions - Chess*** : Four Nations Championship 2019 organized by Pearson Lanka (Pvt.) Ltd.
- ***Colours Recipient - Karate*** : Year 2016 & 2017, University of Kelaniya
- ***2nd Runner Up*** : Inter University Games 2017 - Karate, Under 68 kg Kumite Event
- ***2nd Runner Up*** : Sri Lanka University Games 2016 - Karate, Under 61 kg Kumite Event
- ***Colours Recipient - Karate*** : Colours Night 2013, Viskha Vidyalaya, Colombo 05
- ***Best Player - Karate*** : Colours Night 2012, Visakha Vidyala, Colombo

EXTRA CURRICULAR ACTIVITIES

Sports & Aesthetic

- Black Belter, Colours & Award Recipient and an active member of Visakha Vidyalaya Karate team
  Year 2007-2014 (National Level)
- Member of Visakha Vidyalaya Kabbadi Team – Year 2011-2013 (National Level)
- Member of Visakha Vidyalaya Carrom Team – Year 2007-2009 (National Level)
- Member of the Visakha Vidyalaya Cadet Contingent – Year 2014 (National Level)
- Other Sports: Wushu, Volleyball, Swimming, Chess, Soccer. (School Level)
- Aesthetic: Drama, Art (School Level)

Leadership

- Finance Coordinator - RealHack 2.0 organized by Software Engineering Students' Association of University of Kelaniya.
- Karate Captain of University of Kelaniya 2018/2019.
- Appointed as a Senior Prefect of Visakha Vidyalaya 2012/2013.
- Appointed as the Karate Captain of Visakha Vidyalaya 2012/2013.
- Appointed as the Head Girl of Sri Somarathana Dhamma School 2011
- Appointed as a Junior Prefect of Visakha Vidyalaya 2010/2011.

SOCIETIES & CLUBS

Vice President
Marketing & Communication

AIESEC in University of Kelaniya

February 2018 – February 2019

Local chapter of AIESEC, a youth run global organization who strive for peace and fulfilment of humankind's potential.

Member

Software Engineering Students' Association

June 2017 – Present

Student Association of B.Sc. (Hons.) in Software Engineering undergraduates.

LANGUAGES

English
Sinhala
Tamil

REFEREES

Dr. (Mr) Lankeshwara Munasinghe
Senior Lecturer (Grade II),
University of Kelaniya,
Dalugama, Sri Lanka
(+94) 767 722 340 lankesh@kln.ac.lk

Dr. (Mrs) Isuru Hewapathirana
Senior Lecturer (Grade II),
University of Kelaniya,
Dalugama, Sri Lanka
(+94) 777 329 626
ihewapathirana@kln.ac.lk

Mr. Sudheera Liyanage
Principal Software Engineer,
Applied Research & Development,
Pearson Lanka (Pvt.) Ltd.,
Colombo 09, Sri Lanka.
(+94) 714 818 024
sudheera.liyanage@pearson.com

Mr. Dinesh Priyankara
Principal Architect,
DineSQL (Pvt) Ltd.,
Kadawatha, Sri Lanka
(+94) 777 395 871
dinesh@dinesql.com

TOP RESEARCH

Music Genre Recognition | *Academic - Individual*

Sept 2019 - Feb 2020

This research utilizes a combination of two mechanisms, a CNN and Attention, to predict the appropriate Genre of a piece of music represented as multiple features, instead of a single feature like Mel-Spectrum. The CNN is helpful for local feature extraction and the Attention is used to identify temporal patterns in the piece of music. The GTZAN dataset is used to extract domain-related characteristics and create multiple diverse features. These features are then be used to classify the genre by using the mentioned architecture. The final classification on the genre is produced as multi-class probabilities with the use of Softmax activation function. Finally, the performance of the new implementation is compared based on F1 score and accuracy

- Keywords: Music Information Retrieval, Music Genre Recognition, Self-Attention, Multiple features
- Technologies: Python, Fast.ai

Project APSES | *Under Pearson Lanka - Team*

Sept 2018 – June 2018

This research analyzes a video stream of a student presenting their speech and evaluates the suitability of their gestures and emotions with respect to the context of the speech. It also counts the unnecessary words and breaks of the student and provides comprehensive feedback to the student. The emotion recognition subsystem of this project was the individual research and development responsibility given to me. Divided the task into two subparts as face detection and emotion recognition, and developed models to recognize emotion in a given video frame. The models were evaluated and selected using accuracy and F1 score. Apart from that, I participated in joint research of speech recognition subsystem of the project

- Keywords: Face Detection, Emotion classification, Speech-to-text, Punctuation, Natural Language Processing
- Technologies: Python, TensorFlow, Flask, Kaldi, OpenCV, Ansible, HTML/CSS, JavaScript, JQuery

Document Classifier | *Under Pearson Lanka - Individual*

June 2019 – July 2019

Research-based project in the area of Natural Language Processing (NLP). The task given is to automatically classify flashcards created by system or users under available topics. Had experience manipulating State-of-the-art Language Architectures like LSTM, GRU etc. and trying out models like ULMFiT, BERT for achieving the requirement. A service is created as a REST API using the final model and deployed in servers.

- Keywords: Document Classification, Topic Modelling, Natural Language Processing
- Technologies: Python, Pytorch, Django + Django REST framework

Question and Answering Chatbot | *Under Pearson Lanka - Individual*

Dec 2018 – Feb 2019

Research-based in the area of Natural Language Processing (NLP) which does reading-comprehension question and answering task, based on Pearson books and other documentation. Had experience manipulating State-of-the-art Language Models like BiDAF. for achieving the requirement. A service is created as a REST API using the final model and deployed in servers.

- Keywords: Reading comprehension, Question and Answering, Natural Language Processing
- Technologies: Python, Pytorch, Django + Django REST framework, Ansible

TECHNICAL SKILLS

- **Knowledge Areas :** Deep Learning (Vision & NLP)
- **Languages & Frameworks :** Java SE, Python, JavaScript, Django, Flask, Springboot
- **DevOps Capabilities :** Linux, AWS, GCP, Kubernetes & Docker, Guicorn, Tomcat, Nginx, Ansible Scripting, JMeter
- **Databases & IMDGs :** MySql, SqlServer, MongoDB, ScaleOut State Server
- **Version Control :** Git (BitBucket & Github)

SOFT SKILLS

Good Presentation skills | Leadership Skills | Strong team Player | Good Communication Skills | Time Management | Interpersonal Skills