

Tharmapalan Thanujan

DEPARTMENT OF COMPUTER ENGINEERING, UNIVERSITY OF PERADENIYA, SRI LANKA

karappukkuththi, kanagarayankulam, vavuniya

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Education

University Of Peradeniya

BSc.ENG(HONS.) IN COMPUTER ENGINEERING

GPA: 3.3/4.0

Nov. 2018 – Present

J/Jaffna Hindu College

G.C.E. ADVANCED LEVEL EXAMINATION

Mathematics(A), Physics(B), Chemistry(B)

Jul. 2013 – 2017

Relevant Coursework

- Machine Learning
- Deep Learning
- Embedded systems
- Programming
- Explainable AI
- Artificial Intelligence
- Software methodology
- Computer Architecture

Experience

Web Consultation team of University of Peradeniya

MEMBER OF TECH SUPPORT TEAM

2020 - Present

- A group of volunteer university engineers do research and suggest ways to make Peradeniya University's digital presence more impressive.
- The team is supervised by Prof. Roshan G. Ragel and backed by recent graduates of the Department of Computer Engineering, University of Peradeniya.
- Contribution :
 - Done reserch to improve Search engine optimization of our university website.
 - Gave tech support for other our university websites to digital presence of their website.

Casual instructor

DEPARTMENT OF COMPUTER ENGINEERING, UNIVERSITY OF PERADENIYA

Sep. 2022 - Present

- CO321 : Supervised weekly 2hr long online lab sessions based on micro-controllers.

Projects

Leaf disease classification |

INDIVIDUAL

2020 - Present

- Created a web application to classify tomato plant disease based on plant leaves.
- Gathered and modified dataset, Trained an image classification AI model, Mobilenet, using transfer learning.
- Researched the performance of the model with noises.
- Explainable AI models such as vanilla saliency map, GradCam, GradCam++, SHAP, and Lime is used to explain the model
- Created a Django application using python and Tensor flow to display the prediction and explanation of the predicted disease.
- Technologies: Django, TensorFlow, Machine Learning, Explainable AI.

Host Pathogen Interaction |

GROUP

2021 - Present

- Created a web application using Django and Tensor flow to predict and show the classification of disease based on a DNA sample.
- Contributions :
 - led this team.
 - Used a machine learning model to classify the disease based on relative abundances of microbial species.
 - pre-processed collection of relative abundance data, trained the model, and integrated the model into the web application.
- Technologies: Django, Machine Learning, DevOps

Smart Inventory Management System |

GROUP

2021 - Present

- Developed a web application using Laravel and Mysql to manage inventory items in the computer engineering department.
- Contributions :
 - Designed and implemented the database for the Inventory Management System.
 - Developed a back-end for the web application.
- Technologies: Laravel, MySQL

Maker mate |

GROUP

2021 - Present

- Created a web application and a smart locker using Laravel, MySQL, and Raspberry pi to make the computer engineering department's lending system online.
- Contribution: Made an API for the inventory management system.
- Technologies : Laravel, MySQL, Raspberry pi

Bicycle sharing system

GROUP

2018 - Present

- It is a system to share bicycles among students within a university to travel between faculties.
- Contribution : Developed a web application using Java-script and NextJS for Bicycle sharing system.
- Technology: React, Embedded system, Flutter, NextJS

Skills

Machine learning Tensorflow, Keras, Jupyter, Anaconda

Programming Python, Java, C, C++, Verilog-HDL, HTML/CSS, JavaScript, SQL

Back-end Laravel, Express, Django, REST API, NodeJS

Front-end Redux, React, VueJs , NodeJS, ReactJS, Flutter, AngularJS, VueJs, NextJS, NuxtJs, SASS

Embeded Sys. Arduino, Raspberrypi, FPGA

Devops AWS, Docker, Kubernetes

Leadership

University students' union of Kanagarayankulam (Society)

MEMBER

2020 - Present

- A team of undergraduates from our village volunteering to improve educational
- Arranged seminars for G.C.E O/L and G.C.E A/L students for each year
- Gathered funds and provided basic relief goods to some people in several villages during pandemic.

Extracurricular Activity

Boxing

PLAYER

2017-present

- Got a half-color at the color awarding ceremony at the University of Peradeniya.
- Provincial level boxing competition at northern province : Gold medal
- Provincial level boxing competition at central province : Bronze medal
- Participated Novices intermediate national boxing competition
- Participated Novices national boxing competition

Reference
