# **NIPUN WAAS**

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Katunayake, LK

waasnipun.github.io



A passionate persuer showing interest in the fields of Computer Science and Machine Learning. A quick learner with a can-do attitude willing to take up challenges and passionate to dig deep into an area of interest.

# **EXPERIENCE**

## **Engineering Intern**

### **Dialog Axiata PLC**

- **October 2020 March 2021**
- Colombo, LK
- Developed a highly interactive web-based platform for visualizing device connections in signal towers.
- Developed automation tools to enhance efficiency, productivity, and quality of day today activities.
- Involved in designing and building a machine learning models to predict future mobile traffic in cell towers.
- Communicated with senior engineers on a daily basis.

## Software Engineer

### Hexcodelabs

- **J**une 2020 November 2021
- Colombo, LK
- Hexcodelabs is a startup company aiming to develop solutions for client needs such as mobile and web apps, machine learning and IoT projects, etc.
- Involved in planning and managing developers and clients both local and foreign.
- Architected and implemented IOS apps using flutter and deployed them into the AppStore.

# **PROJECTS**

# Autonomous crop spraying robot with precision RTK & Vision based navigation - Final Year Project

- Developing an autonomous robot which navigates through a user defined path using RTK and deep learning.
- Involved in developing the machine vision system and the robot.
- This project is currently ongoing.

Robotics Deep learning ROS Jetson Nano Python

### Familife V2

# familifeapp.com

- Developed and deployed an full-stacked IOS mobile app using flutter for a Denmark based startup.
- App is a social media platform for families where family members can find and host different events and tasks within the group.
- Fully developed and maintained by myself.

(Flutter)(Firebase)(IOS/Android)

# **SKILLS**

### **Programming Languages**

Java C++ Python Verilog Dart

### Libraries & Frameworks

Spring Flutter Pandas Scikit-learn
Tensorflow

### **Technologies & Platforms**

Git Java Design Patterns Linux

# Firebase Databases

MySQL

# LANGUAGES

English Sinhala



### **EDUCATION**

B.Sc.(Hons) in Electronic and Telecommunication Engineering

### **University of Moratuwa**

**Sept 2017 - Ongoing | CGPA - 3.37** 

G.C.E. Advanced Level, Combined Mathematics

Maris Stella College, Negombo

**2016** | 3 A's | Z-score - 2.1849

## **COURSES & CERTIFICATES**

- Computer Vision Nano Degree Udacity
- Object Oriented Programming in Java Coursera
- Parallel, Concurrent, and Distributed Programming in Java Specialization
   Coursera

#### **Artific**

f github.com/waasnipun/artific

- Algorithmic python pip package implemented purely in python and deployed in pypi.
- Visualizes the steps of arriving at the solution for sorting and searching algorithms.

Python Data structures & Algorithms

### **Pathfinder**

- Web app to visualize shortest path finding algorithms.
- Build to help understand and explore the graph algorithms in depth.

Javascript React Data Structures and Algorithms

### **Image Captioning**

github.com/waasnipun/DL/tree/main/Image-Captioning

- This project is about designing and training a CNN-RNN (Convolutional Neural Network - Recurrent Neural Network) model for automatically generating image captions.
- The network is trained on the Microsoft Common Objects in COntext (MS COCO) dataset.
- Project is done as a part of the Udacity Nanodegree program

Python Pytorch LSTM

### Time Series Forecasting: Predicting mobile traffic with LSTM

github.com/waasnipun/timeseries-mobile\_traffic-forecast-LSTM

- Involved in designing and building a machine learning model by using LSTM to predict future mobile traffic in cell towers.
- Model is able to predict 7 days into the future by learning the pattern of the past data.

Python Tensorflow

### Maze Solving Micro Mouse Robot

- Developed a micro mouse robot which can map a maze, finding the shortest path to the middle of the maze and going back again in a minimum time.
- Involved in developing the robot and the path finding algorithm.

# **ACHIEVEMENTS**

- Finalist at SLIIT Robofest Competition 2019/21.
- Finalist at Sri Lankan Robotics Challenge Competition 2019.
- All-Island 16th in MoraExtreme 2019 organized by University of Moratuwa.
- All-Island 16th (Global 326th Out of 5015) in IEEExtreme 13.0 organized by IEEE.
- College Award for the outstanding achievement at G.C.E. A/L examination 2016 Awarded by Maris Stella College, Negombo.

Neural Networks and Deep learning
 Coursera

 Mathematics for Machine Learning: Linear
 Algebra
 Coursera

# **SOCIETIES & LEADERSHIP**

President 20/21
 Catholic Students' Society, University of Moratuwa.

Head of PR 20/21
 Project SPARK, Electronic Club, University of Moratuwa.

MarCom Team 18/19
 AIESEC in University of Moratuwa.

President 15/16
 Science Union, Maris Stella College, Negombo.

Treasurer 14/15/16
 Media Club, Maris Stella College, Negombo.

# **REFEREES**