DEEGHAYU SUWAHAS ADHIKARI

Teaching Assistant | Voluntary Research Assistant @ UOK

SUMMARY

A recent graduate and electronics teaching assistant with a strong foundation in software engineering, IoT, and embedded systems. With hands-on experience in real-time communication and autonomous systems, currently pursuing a Master's in IT. Proven expertise in developing resource-efficient IoT-based solutions, and keen to apply machine learning and computer vision skills to autonomous drone research. Skilled in managing projects, optimizing algorithms, and leading teams toward innovative solutions.

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TECHNICAL SKILLS -

Languages:

C++, Python, JavaScript, HTML, CSS

Frameworks/Tools:

React, Git, GitHub, VSCode, PyCharm, WebSockets,

Specialties:

Web Development, IoT Systems, Embedded Systems, Real-Time Systems, QR Technology, Algorithm Optimization

EDUCATION -

Ongoing	Master in Infomation Technology (Reading)	University of Kelaniya
2021 - 2024	BSc in Physical Science (Computer Studies, Electronics and Physics) With a 2nd class upper division pass	University of Kelaniya
06/2023	Certificate - Responsive Web Design	www.freecodecamp.org
11/2023	Certificate - Machine Learning with Python	www.freecodecamp.org
10/2024	Certificate - JavaScript Algorithms and Data Structures (Beta)	www.freecodecamp.org
Ongoing	Certificate - Introduction to Deep Learning	DSCS University of Kelaniya

PROJECTS

IoT Queue Management System for National Institute of Infectious Diseases Ongoing

> Developed for the National Institute of Infectious Diseases. Secure, internet-free, QR-based IoT input device with real-time notifications using WebSockets.

2023 - 2024 Quadcopter Based Intelligent Irrigation System | Electronics Research Project http://areenwing.scienceontheweb.net

> Merging electronics and agriculture, utilizing quadcopter technology with intelligent sensors for autonomous irrigation.

AI-based Assignment-Solving Android App 2024 https://github.com/DeegayuA/SnapLearn

> Developing an Android application integrating Gemini AI to provide comprehensive assignment-solving assistance. Utilizing Kotlin and Jetpack Compose, Real-time OCR using ML kit.

2024 **Deep Learning Mini Projects**

https://github.com/DeegayuA

- A series of mini deep learning projects:
 - 1. Sinhala character recognition deep learning model training image classification using RNN. (https://github.com/DeegayuA/Deep-Learning-Mini-Project-01)
 - 2. Stock Price Prediction using LSTM Recurrent Neural Networks. (https://github.com/DeegayuA/Deep-Learning-Mini-Project-02)
 - 3. English to Sinhala translation model using transformers. (https://github.com/DeegayuA/Deep-Learning-Mini-Project-03)

Portfolio Website 2021

ACHIEVEMENTS AND AWARDS

02/2024 Participation - UWU ROBOT BATTLES 2.0: Death Race (2024) Uva Wellassa University, Sri Lanka

Competed in the UWU Robot Battles 2.0: Death Race, demonstrating robotics skills and collaborative

spirit.

11/2023 Second Runner Up - Sky of Icarus Custom-Drone competition - 2023 IESL Young Member Section, South

Eastern University, Sri Lanka

Achieved second runner-up in the Sky of Icarus 2023 drone competition, demonstrating expertise in

drone technology and teamwork.

04/2022 Best of the Class | Final Year | School Gurukula National College, Kelaniya

Attained Class Proficiency in final year of high school, underscoring commitment to academic excellence.

11/2018 Merit Certification | Open Day Robotic Competition NERDC, Sri Lanka

Achieved a Merit Certification at the District Level Open Day Robotic Competition.

06/2018 Participation | SLIIT GAMEFEST 2K18 SLIIT

Showcased involvement in SLIIT GAMEFEST 2K18, a game development competition.

LEADERSHIP AND TEAMWORK

2021 - 2023 Steam - VidE Media Unit, FOS, UOK

Event Coordinator, VidE - 21/22, Head of Photography 20/21,

Member 19/20

2022 - 2023 Inventors Club University of Kelaniya

Vice President 21/22, Junior Treasurer 20/21

2022 - 2023 E-Waste Project Electronic Development and Innovation Center | University of Kelaniya

Junior Electronics Lead 20/21, Electronics Lead 21/22

2021 - 2022 Astronomy and Space Science Association University of Kelaniya

Co-Coordinator 20/21,

Main Web Developer 19/20 and 20/21,

Committee Member 19/20

2022 Statistic and Computer Science Students' Association University of Kelaniya

Editor 20/21

LANGUAGES -

Sinhala - Native, English - Intermediate, German - Beginners,

REFERENCE

Professor A. L. A. K. Ranaweera

Professor Department of Physics and Electronics, University of Kelaniya

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Senior Lecturer (Grade II)

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