



KALANI RODRIGO

INFORMATION TECHNOLOGY UNDERGRADUATE

I am an Information Technology undergraduate at Rajarata University, with a strong interest in software quality assurance. Passionate about improving software reliability and user experience. Seeking a QA internship to develop my skills and contribute to high-quality software



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Madampe, Sri Lanka



Kalani Rodrigo



KalRodrigo

EDUCATION



BSc in Information Technology

Rajarata University of Sri Lanka
2021 - 2025



Certified in Human Resource Management

Chartered Institute of Personal Management - CIPM
2021



Secondary Education

Holy Family Girls School,
Wennappuwa
2016 O/L

Holy Angels' Girls College,
Kuliyaipitiya
2019 A/L

TECHNICAL SKILLS

PROGRAMMING LANGUAGES

C

C++

JAVA (Beginner)

python

PROJECTS

2023

Final Year Research Project | Group

2025

Deep learning based Coral Reef Classification and Assessing Algae Coverage on Corals

- Developed a U-Net segmentation model to detect and quantify algae on coral reefs, achieving 85% IoU.
- Built a YOLO-based system to identify and label five underwater species in video footage.
- Processed datasets using image augmentation, mask generation, and categorical encoding for multi-class segmentation tasks.
- Applied optimization techniques including early stopping and dropout to enhance model generalization.
- Evaluated models using Intersection over Union (IoU) and accuracy metrics for performance assessment.
- Created a mobile application for users to upload images/videos, receive real-time predictions, and request datasets.
- Utilized TensorFlow, Keras, OpenCV, and Scikit-learn as the primary tech stack.

2024

Tree Classification using Machine Learning | Group Project

- Developed a machine learning model to classify tree species using TensorFlow and Keras.
- Preprocessed and analyzed the dataset with Pandas for efficient data handling and feature engineering.
- Built and trained a neural network using the Sequential API and optimized model performance with Keras-Tuner.
- Performed feature selection and fine-tuned hyperparameters to enhance classification accuracy.

Site: https://github.com/KalRodrigo/Tree_Classification_Model

WEB DEVELOPMENT

HTML
CSS
PHP

DATABASE

MYSQL

OTHER

Selenium (Beginner)
OOP Concepts
JIRA
Figma
Agile and Scrum methodologies

CERTIFICATES AND COURSES

- Python for Beginners -University of Moratuwa(2024)
- Diploma in Software Testing - Alison (Reading)
- Introduction to Software Testing & Software QA - Udemy(2025)

SKILLS

Communication
Adaptability
Teamwork
Time management
Problem Solving
Continuous learning

LANGUAGES

Sinhala (Native)
English

2024 Portfolio Website

- Designed & Developed a fully responsive portfolio website using HTML5, CSS3, and JavaScript.
 - Implemented Interactive Features using jQuery & Typed.js for smooth text animations.
 - Optimized UI/UX with a modern, mobile-friendly design following best web design practices.
 - Integrated Contact & Social Features including contact forms, project showcases, and social media links for easy engagement.
 - Tech Stack: HTML5, CSS3, JavaScript, jQuery, Typed.js, Font Awesome.
- Site: <https://github.com/KalRodrigo/Portfolio-Website>

ACHIEVEMENTS

Publications

- Automated Algae Detection and Quantification on Coral Reefs Using U-Net Segmentation Model, published in IEEE Xplore, 2024, at the 8th SLAI International Conference.
- Co-authored a research paper focused on deep learning-based algae coverage calculation.

site : <https://ieeexplore.ieee.org/xpl/conhome/10844929/proceeding>

RUSL XTREME 1.0 – Merit

- Organized by IEEE Student Branch of Rajarata University of SriLanka

One of the Top 10 Final Year Projects of 2024 in the Computing Department, Faculty of Applied Sciences, Rajarata University.

EXTRA CURRICULAR ACTIVITIES

- Member – IEEE Student Branch at RUSL (2024-Present)
- Member – Women in FOSS organization at RUSL (2024-Present)
- Zero Plastic Volunteer at RUSL Zero Plastic Community – ZP455 (2023–2025)
- Bhatkhande Visharad (Vocal)
- Member of the Western Band at St. Anthony’s Church Tharana (2014–2017)

REFERENCES

Dr. K.A.S.H. Kulathilake
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