UDANI PATHIRANA

INFORMATION TECHNOLOGY UNDERGRADUATE

I am an enthusiastic and creative Information Technology undergraduate at the Rajarata University with a passion for human-centered design. I thrive on transforming user needs into intuitive digital experiences through thoughtful interface design and seamless interactions. With a keen eye for aesthetics and a strong foundation in user experience principles, I am committed to creating products that delight users while solving real-world problems. I am eager to apply my design thinking skills and grow as a **UI/UX Engineer Intern**, contribute to impactful projects, and further develop my expertise in user experience design.

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Kurunegala,SriLanka

udani99

Udani Pathirana

EDUCATION

BSc in Information Technology

Rajarata University of Sri Lanka

2021-present

COURSES & CERTIFICATES

User Experience (UX) Fundamentals
Udemy

Learn Figma for UI UX Design
Udemy

TECHNICAL SKILLS

UI/UX Designing

- User Research
- Wireframing and prototyping
- Interaction Design
- Proficient in Figma

Front-End Developing

- HTML
- CSS
- Bootstrap
- React

PROJECTS

Final Year Research Project |Group 2023-2025

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

- Developed a deep learning model using U-Net segmentation for automated algae detection and quantification on coral reefs.
- Utilized TensorFlow, Keras, OpenCV, and Scikit-learn for model training and evaluation.
- Processed dataset with image augmentation, mask generation, and categorical encoding for multi-class segmentation.
- Implemented early stopping and dropout for improved model generalization.
- Evaluated model performance using IoU (Intersection over Union) and accuracy metrics.

Portfolio Website 2024

- Designed and developed a responsive personal portfolio website using HTML5, CSS3, and JavaScript
- Implemented interactive features using jQuery and Typed.js for dynamic text animations
- Created a mobile-responsive design with a modern UI/UX following web design best practices
- Integrated contact forms, project showcases, and social media links
- Technologies used: HTML5, CSS3, JavaScript, jQuery, Typed.js, Font Awesome

site: https://github.com/udani99/portfolio_24

Mandala Hotel & Spa Website | Personal Project

- Developed a comprehensive hotel website using HTML, CSS, and JavaScript to showcase amenities, rooms, and special offers
- Implemented interactive features including image slider and smooth scrolling for enhanced user experience
- Created dynamic content functionality to allow easy updates of hotel information and promotions

site: https://github.com/udani99/portfolio01

- Basic Knowledge of programming(C,PHP,Python,C++)
- Computer Vision
- TensorFlow
- Keras
- Python
- OpenCV
- Research Writing
- Deep Learning
- Pandas
- NumPy
- data cleaning
- feature selection
- Hyperparameter tuning with Keras-Tuner

SOFT SKILLS

- Communication
- Adaptability
- Problem-Solving
- Team Work
- Time Management
- Continuous Learning
- Attention to Detai
- Self-Motivation

LANGUAGES

- Sinhala (Native)
- English

REFERENCES

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Tree Classification using Machine Learning| Group Project

- Developed a machine learning model for classifying tree species using TensorFlow and Keras.
- Preprocessed and analyzed dataset using Pandas for efficient data handling.
- Implemented a neural network using Sequential API and optimized model performance with Keras-Tuner.
- Conducted feature selection and fine-tuned hyperparameters to improve classification accuracy.

-site: https://github.com/udani99/tree_classifier

ACHIEVEMENTS

Publications
Automated Algae Detection and Quantification on Coral Reefs Using U-Net Segmentation Model Published in IEEE Xplore, 2024 8th SLAI International Conference.

- Co-authored a research paper on deep learning-based algae coverage calculation.

--> *https://ieeexplore.ieee.org/document/10844984*

RUSL XTREME 1.0 - Merit

Organized by IEEE Student Branch of Rajarata University of SriLanka

EXTRA CURRICULAR ACTIVITIES

- **Member -Chess Team** 2022
  Rajarata University of Sri Lanka
- **Vice Captain - Chess Team** 2023
  Rajarata University of Sri Lanka
- **Captain - Chess Team** 2024
  Rajarata University of Sri Lanka
- **Member of the RUSL Women in FOSS organization**
  Rajarata University of Sri Lanka