

# DINUKI FERNANDO

## Undergraduate

As an undergraduate passionate about software engineering, and data science. I'm eager to apply my skills in an innovative organization. I seek to contribute to cutting-edge software development projects as well as AI and ML initiatives, solving complex problems using data-driven approaches. Committed to delivering high-quality results, I thrive in cross-functional teams and am excited to work on impactful technology solutions.



### CONTACT

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### TECHNICAL SKILL

#### Programming Languages

Java C++ Python

#### Web Development

HTML CSS JavaScript

#### Framework & Library

ReactJS NodeJS

#### Database

MySQL

#### Data Visualization

PowerBI R Studio

#### Tools & Platforms

Postman Makoon QGIS  
Git GitLab Jira  
Azure

### SOFT SKILLS

Problem Solving & Critical Thinking  
Flexible, Adaptable & Multi-tasking  
Decision making  
Communication  
Team work

### INTERESTS

Learning Korean Culture  
Learning IT and Technology  
Video Editing

### WORK EXPERIENCE

#### Freelance Tester - Tester Work

2023 - 2024

- Conducted comprehensive functional and user acceptance testing for a variety of mobile applications and websites.
- Developed and executed test cases to identify and document software defects.
- Adhered to project timelines and quality standards.

#### Software Engineering Intern - Axiata Digital Labs

6 months ( 2023-2024 )

- Collaborated in a team environment to develop designs, integrate APIs, manage permissions, and conduct testing.
- Contributed to the development and refinement of software features.
- Conducted thorough code reviews and debugging sessions, identifying five critical software bugs that improved overall feature stability by enhancing performance metrics of the applications during testing phases.
- Presented progress updates in team meetings and demonstrated adaptability in addressing technical challenges.

### EDUCATION

#### B.Sc. (Hons.) in Information Technology

2021 – Present

Faculty of Science, University of Kelaniya

Current GPA - 3.9 / 4.0

Artificial Intelligence, Machine Learning, NLP, Reinforcement Learning, Complex Systems and Agent Based Modeling

### PROJECTS

#### Nursing Home Management System

Designed a system to streamline administrative operations and patient care in nursing homes.

Technologies: HTML, JS, CSS, React.js, Express.js, MySQL

<https://github.com/DinukiFernando/ProCare-Nursing-Home-Management-System>

CERTIFICATIONS

**Web Design For Beginners**  
Issued by University of Moratuwa  
· June 2023

**Python For Beginners**  
Issued by University of Moratuwa  
· May 2022

**HTML, CSS, JS Certifications**  
Issued by Udemy Online platform  
· Sep 2021

**React & React Native Certification**  
Issued by Linkedin learning Online  
platform · Jan 2024

**Java for Beginners Certification**  
Issued by Udemy Online platform  
· May 2023

**Master Microsoft Power BI**  
Issued by Alison · Jul 2021

ACHIVEMENTS

**Inter University Women's  
Hackathon (Top 5)**  
Issued by IEEE WIE Student Branch  
Affinity Group  
Sabaragamuwa University of Sri Lanka

**Dean’s List honors - University of  
Kelaniya**  
Best performance in academic year  
2019/20 and 2020/21

EXTRA CURRICULAR  
ACTIVITY

**Media Unit**  
Holy Family Convent, Marawila

**Sport Club**  
Holy Family Convent, Marawila

**X-Environment Pioneer's  
Association**  
Holy Family Convent, Marawila

REFERENCES

**Dr. T. K. Wijayasiriwardhane**  
Senior Lecturer  
Department of Industrial Management  
Faculty of Science  
University of Kelaniya  
Phone - 011 291 4482  
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**Mr. P. P. G. Dinesh Asanka**  
Senior Lecturer  
Department of Industrial Management  
Faculty of Science  
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Hybrid Outlier Detection Model Research

Developed a hybrid outlier detection model combining LOF, iForest, OCSVM, and Autoencoder for data warehouses. This advanced model integrates SHAP for root cause analysis and leverages dimension tables for aggregating results, enhancing data integrity and aiding decision-making processes.

Published : ICACT & DRC 2024 held at the University of Kelaniya

<https://github.com/DinukiFernando/Outlier-Detection-in-Data-Warehouses-using-LOF-One-SVM-iForest-and-Autoencoders>

Human Elephant Conflict simulation Model

The HEC model simulates human-elephant conflict dynamics using agent-based modeling to analyze interactions and mitigate conflicts.

Student Management System

Designed a system to streamline administrative operations and patient care in nursing homes.

Technologies: HTML, JS, CSS, React.js, Express.js, MySQL

<https://github.com/DinukiFernando/ProCare-Nursing-Home-Management-System>

Tuition Management System - Group Project

Created a platform to facilitate the administration of tuition payments, student enrollment, and financial records.

Technologies: Java, MySQL

Bus Reservation System - Group Project

Engineered a reservation system to simplify the booking, scheduling, and management of bus services.

Technologies: Java, MySQL

C++ Game - Group Project

Developed a game using C++ to demonstrate object-oriented programming skills and interactive design principles.

Technologies: C++

Machine Learning related projects

Designed and implemented a series of models for applications ranging from financial risk prediction to interactive systems

Technologies: Python, PyODbc, Pandas, Sklearn, Keras, Sharp, Matplotlib, TensorFlow, Numpy, Pytor

Outlier Detection in Data Warehouses using LOF, One-SVM, iForest, and Autoencoder	Facial Emotion Recognition Models using CNN, VGG16 and ResNet50
Face & Object recognition model	Gesture-Controlled Music Player
Loan Default Prediction Using Neural Networks	Bangalore House Prediction Using Neural Networks
Predicting Credit Card Default Customers Using Neural Networks	Handwritten Digit Recognition model