SANOJ BHANUKA LIYANAGE

ELECTRICAL AND INFORMATION ENGINEERING UNDERGRADUATE

University of Ruhuna

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Sanoj Bhanuka Liyanage

SanojBhanuka

PROFILE

A resilient individual who is currently a final-year engineering undergraduate from the Faculty of Engineering, University of Ruhuna. Dynamic and able to work under stressful conditions. Possess the constant need to improve one's skill set and step out of the comfort zone. Fluent in English and possess good communication skills. Equipped with experience in being a leader and a good track record of being a team player. Currently pursuing a career in the IT field, and intends to specialize in Software engineering. An eager individual who is willing to learn new concepts and skills.

EDUCATION

Apr 2020 – Present

DEPARTMENT OF ELECTRICAL AND INFORMATION ENGINEERING
UNIVERSITY OF RUHUNA

- Bachelor of the Science of Engineering
- GPA: 3.64 / 4.0

GCE A/L EXAMINATION-2018
ST.ANNE'S COLLEGE, KURUNEGALA

- 2A's and 1B for Combined Mathematics, Physics and Chemistry respectively
- Z-score = 1.7287

SKILLS

- Software Skills : C, C++, Python, Java
- Database Management : MySQL, SQL, MS Access, MongoDB
- Hardware Description Language : HDL, Verilog
- Machine learning / AI
- Cloud computing : AWS , Azure
- Software development : MERN

WORK EXPERIENCE

SriLankan Airlines Ltd. 2023-2024

Airline Centre,Bandaranaike International Airport,Katunayake

- Completed 3 months internship period as Electrical and Electronic engineer

Student Instructor 2024-Present

Department of Electrical and Information Engineering , University of Ruhuna

- Working part-time as a student instructor

PROJECTS

Implementation of a FL poisoning and defense system in an IoT based health prediction network (Ongoing)

Developing a Federated Learning defense system for IoT-based health prediction, with a focus on patient privacy, robust defense against poisoning attacks in non-IID data, and rigorous effectiveness assessments.

Fast-Time-Flight-Plan Simulator

It is an air traffic control system that simulates flight schedules to identify collisions and delays, developed for researchers and professionals in air traffic management.
Role: Front end developer.

Logic Gate Simulation Software

ItIt is a software that allows the users to create logic gate circuits and find the output of the circuit. (One of the top four projects in the Eminence 2.0 competition).

Customer Churn Prediction in Telco Context

Implemented machine learning to predict and mitigate telecom customer churn using Logistic Regression and SVM, providing insights for retention strategies.

PERSONAL SKILLS

- Presentation Skill
- Communication Skills
- Problem Solving
- Leadership

CERTIFICATIONS

- Introduction to Microsoft Azure Cloud Services
- AWS Fundamentals Specialization
- Introduction to Cloud Computing
- Supervised Machine Learning: Regression and Classification
- Advanced Learning Algorithms

INTERESTS

- Cloud computing
- Artificial Intelligence
- Machine Learning
- PCB designing
- Wireless Communication

LANGUAGES

- Sinhala
- English

Railway management database system

Developed a scalable Railway management database system using MySQL to oversee railway operations, including trains and stations. Role: Database developer, responsible for schema design, table creation, relationship definition, and query optimization.

Object detection radar system using K-LD2 sensor

I contributed to the successful development and implementation of an innovative object detection radar system using the K-LD2 sensor. Our project accurately measured the speed and distance of moving objects by capturing primary signals only.
Role: Python Code Developer and System Integration

Assistive Communication system for Disabled

Actively involved in developing an assistive communication system for individuals with disabilities using embedded systems to bridge the communication gap with caregivers and medical professionals.
Role: Embedded Systems Developer

16-bit Risk Processor

Designing a 16-bit RISC processor using Verilog. Responsibilities include developing the datapath, control unit, and instruction set architecture (ISA) using Verilog hardware description language. The project aims to create an optimized and efficient processor design.

Dual Variable Regulated Power Supply

Contributed significantly to the design and development of a dual variable power supply, capable of providing +12 to -12 voltages from an AC power source. The power supply allowed for continuous adjustment of voltage levels.
Role: Design and PCB Development

REFERENCE

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