## Yasith Silva

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#### **EDUCATION**

#### University of Moratuwa, Sri Lanka

BSc. (Hons) Engineering, Electronic and Telecommunication CGPA: 3.56/4.00

May 2022 - Present

D.S. Senanayake College, Colombo 07

G.C.E. Advanced Level (Physics, Mathematics, Chemistry) 3As / z-score 2.21

G.C.E. Ordinary Level

2012 - 2020

Maris Stella College, Negombo

2007 - 2012

#### **PROJECTS**

**UART Transciever using DE0-Nano FPGA Board**: This project aimed to create a UART Transceiver, communicating between two DE0-Nano FPGA Boards. The design was modified to control a series of LEDs on each board from the other, using the onboard switches on the other board.

Wireless Reconfigurable Andon System with Maintenace Prediction: Aim of the project was to create an Andon System: a system in use in manufacture industries to flag problems. We equipped this with wireless datalogging, and maintenace prediction.

METROBAND — A Metronome Wristband: An alternative to traditional metronome which aids musicians to keep to their tempo. The circuit was designed around an ESP32-S2 chip.

Guitar Pedalboard: This project aimed to create a set of amplifiers, which adds various audio effects to the audio. Among these effects were Overdrive, Fuzz, Tremolo and Wah. This was done as a fully analog project, using operational amplifiers.

A Multitasking Robot: This is an autonomous line follower robot, with abilities of collision avoidance, a mechanical arm able to pick up an object, colour detection, sound detection, detecting a moving guard robot, and avoiding it

#### COMPETITIONS Uva Wellassa University Robot Battles 2.0 Death Race — Semifinalists:

The competition had around 50 teams manoeuvring a Remote Controlled Battlebots on several races across an outdoor path containing various obstacles such as ramps, saws, hammers and fire.

Microsoft ImagineCup: Project CrystalClear: For this, we created a platform which consists of interactive exercises for Dyslexic patients (targeted mostly at kids). This included a finger-pose model evaluating the exercises.

## Brainstorm'24: Project CrystalClear — Finalists (Ongoing)

Idealize 24: SportSense (Ongoing): For this, we created a mobile application which helps users to keep correct pose and form while doing their exercises. This included a stick-figure model evaluating these exercises.

# COURSES AND CERTIFICATES

#### Introduction to FPGA Design for Embedded Systems

University of Colorado Boulder (In Process)

Introduction to UVM — Seiemens Verification Academy (In Process)
Introduction to Embedded Machine Learning — Edge Impulse

Introduction to Machine Learning — Kaggle Intermediate Machine Learning — Kaggle Introduction to Computer Vision — Kaggle

MATLAB Onramp — MathWorks

# TECHNICAL SKILLS

Hardware Design: Verilog, SystemVerilog

Harware Verification: Testbench Design, UVM Programming Languages: Python, C, C++, MATLAB

Web Development: HTML, CSS, JavaScript, TypeScript

Other Languages: Bash, Git, LaTex

Applications: Xilinx Vivaldo, Intel Quartus, Verilator, Altium Designer, ESP-IDF,

Visual Studio, Codux, Android Studio

Operating Systems: Windows, Raspberry Pi OS, Android.

### SOFT SKILLS

### Communication Skills

- Language Skills
  - English Bilingual proficiency
  - Sinhala Native proficiency
- Presentation Skills
  - Was one of the presenters at the Mobitel Lab of the department during EXMO-2023 exhibition.
  - Presented Metroband—The metronome wristband at EXMO-2023
  - Have been a presenter in several other presentations

#### Leadership and Teamwork

- Was the leader for a several group projects at the university.
- Was the batch coordinator for the Mobitel Lab at the EXMO-24 exhibition
- Was a part of the PR team of SLRC-2024
- Been in the organising committees at the school events.

#### EXPERIENCE

#### Design Intern

Third Space Global - Sri Lanka

July 2022 - January 2023

As a Design Intern, I was responsible of brainstorming and creation of promotional content for the organization, primarily focusing on 2D animations, but also videos and social media posts.

Freelance: PCB Designing

fiverr

 ${\rm May}~2024$  - Present

VOLUTEERING AND CLUBS	After School PR & IT Director — Rotaract Club of Acheivers Lanka Business School Video Editor — Electronics Club Member of Association for Computer Machinery - University of Moratuwa Member of IEEE Student branch - University of Moratuwa Member of Classical Music Society - University of Moratuwa	2021/22 2023
	During School  President — Catholic and Christian Society of D.S. Senanayake College Co-organizer — Aeronautical Society of D.S. Senanayake College Co-organizer — Western Music Society of D.S. Senanayake College Member of Senior Boys' Choir of D.S. Senanayake College	2019 2019 2019
INTERESTS	Music — Guitar, Composing Sightseeing historical places Panel Shows — QI, Taskmaster, Would I Lie to You	