# Bimsara Gunawardana

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#### Education

University of Colombo

June 2022 – present

Bachelor of Engineering Technology Honours in Instrumentation and Automation

Colombo, Sri Lanka

Nalanda College

Feb. 2013 - Oct. 2020

GCE Advanced Level - Technology stream - 4A passes with a Z - score of 2.6045

Colombo, Sri Lanka

GCE Ordinary Level - 8A, 1B (including A in English and Mathematics)

# Relevant Coursework

• Embedded Systems

• 3D Modeling and CAD

• Robotics

• Computer Architecture

• Digital Circuit Design

• Micro-controllers

• Systems programming

• FPGA

### Experience

#### VirtualPensar Pvt Ltd

June 2022 - July 2024

Co-Founder and Director,

Colombo, Sri Lanka

- Managed the startup's operations, including project planning, customer relations, and strategic growth while balancing academic studies.
- Successfully managed multiple client projects, including custom 3D modeling, printing, product prototyping, and animated visualizations for marketing and technical demonstrations.

#### Lautus Robotics

August 2021 – February 2022

 $Technical\ Team\ Member$ 

Technical Team Member

Gampaha, Sri Lanka

- Collaborated on the development and implementation of robotic systems, gaining hands-on experience in robotics and autonomous systems.
- Enhanced problem-solving skills through involvement in the design and testing of various components.

# Students for the Exploration & Development of Space Sri Lanka (SEDS)

 ${\bf September~2023-Present}$ 

Colombo, Sri Lanka

- Contributed to the Thaprobane 4.0 Mars rover project, focusing on development of manipulator arm.
- Worked collaboratively in a multidisciplinary team.

# **Projects**

### Smart Mailbox - Sahasak Nimavum 2023 Silver Award

September 2023

 Led a team to develop an award-winning smart mailbox system, providing real-time notifications and secure parcel management.

## Automated Runway Cleaning Rover - Lautus Robotics

February 2022

• Worked on a automated vehicle for cleaning airport runways

# CPU Design and Simulation

February 2024

Designed and simulated a CPU with an ALU and 64-byte RAM, applying skills in digital electronics to bridge theory and
practice in computer architecture.

#### Microcontroller-Based Temperature Monitoring System

August 2024

• Led a team to develop a temperature monitoring system with an ATmega328P, featuring dual display, alarms, LED indicators, and push-button controls, while managing the design, PCB layout, and hardware assembly.

#### Automated 3D Printing Platform (Ongoing)

• Leading the development of an automated 3D printing platform that enables seamless model uploads and automatic pricing, focused on streamlining workflows and enhancing accessibility for efficient 3D printing services.

## Technical Skills and Interests

Languages: Python, C , HTML/CSS, JavaScript, PHP, React, VHDL , SQL, MATLAB

Developer Tools: VS Code, EasyEDA, Git

Technologies/Frameworks: React , Arduino, Raspberry Pi, AWS

3D Design/Simulation: SolidWorks, AutoCAD, Blender, ORCAD, Logisim, Proteus

Soft Skills: Leadership, Problem-solving, Teamwork, Adaptability, Critical thinking, Project Management

# Leadership / Extracurricular

# Nalanda College Aeronautical Society

2018 - 2019

Vice President

## University of Colombo Swimming Squad

May 2024 - Present

Active member of the university swimming team

## Inter faculty and Freshers Badminton Competitions

2023

Won 1st runners-up in both Freshers and Inter faculty championships.

## **UOC Venturers (Hiking Club)**

Jun 2024 - Present

Member