# Bimsara Gunawardana

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# Education

University of Colombo

Bachelor of Engineering Technology Honours in Instrumentation and Automation

Colombo, Sri Lanka

Jun. 2022 - Present

Sri Lanka Robatics Institute (SLIR)

PLC Programming

Nov. 2022 – Apr. 2023

Pannipitiya , Sri Lanka

Nalanda College

GCE Advanced Level - Technology stream - 4A passes with a Z - score of 2.6405

Feb. 2013 - Oct. 2020

Colombo, Sri Lanka

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

# Relevant Coursework

• Embedded Systems

• 3D Modeling and CAD

• Robotics

• Computer Architecture

• Digital Circuit Design

• Micro-controllers

• FPGA

• PLC programming

# Experience

#### VirtualPensar Pvt Ltd

Jun. 2022 – Jul. 2024

Co-Founder and Director,

Colombo, Sri Lanka

- Managed the startup's operations, including project planning, customer relations, and strategic growth.
- Delivered over 60 projects, including 3D-printable designs, prototype models, and 3D animations.

Lautus Robotics

Aug. 2021 - Feb. 2022

Technical Team Member

Gampaha, Sri Lanka

- Significantly contributed to the development and implementation of an autonomous guided vehicle, with the design and manufacturing efforts while gaining valuable hands-on experience in 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)

Technical Team Member

Sep. 2023 – Present

Colombo, Sri Lanka

• Contributed to the Thaprobane 4.0 Mars rover project by focusing on the development of the manipulator arm, participating in kinematic calculations, and designing arm joints as part of a multidisciplinary team.

## **Projects**

 ${\bf Smart\ Mailbox-Sahasak\ Nimavum\ 2023\ Silver\ Award}\ |\ {\it Leadership,\ Teamwork}$ 

Sep. 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 | Problem-solving, Teamwork

Feb. 2022

• Contributed to the initial phase of developing an autonomous guided vehicle aimed at cleaning airport runways, focusing on foundational design and prototyping.

CPU Design and Simulation | Critical thinking, Curiosity

Feb. 2024

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

Micro-controller-Based Temperature Monitoring System | Leadership, Conflict Resolution

Aug. 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) | Leadership, Project Management

Oct. 2024

• 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

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

Developer Tools: VS Code, EasyEDA, Git

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

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

# Leadership & Extracurricular Activities

## Nalanda College Aeronautical Society

2018 - 2019

 $Vice\ President$ 

# University of Colombo Swimming Squad

May 2024 - Present

Active member of the university swimming Squad

### Inter faculty and Freshers Badminton Competitions

2023

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

UOC Venturers

Jun. 2024 – Present

Member

#### References

## Dr. B. L. Sanjaya Thilakarathne

Senior lecturer

Department of Instrumentation and Automation Technology

Faculty of Technology

University of Colombo ,Sri Lanka

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## Chanaka Prasad

Electronic Engineer (Assistant Manager) Softmatter

BSc Engineering(Hons)

MSc(Reading)

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