

Basill Sabu

📍 Melbourne, Australia ✉ basillsabu@gmail.com

A highly motivated Electrical Engineering student at Monash University with a strong foundation in embedded systems, signal processing, and real-world data analysis. Experienced in developing innovative solutions, from designing data acquisition modules to implementing signal filtering techniques. Skilled at problem-solving, adapting to new challenges, and working collaboratively in technical environments.

Professional Experience

Lighthouse Christian College

Feb 2023 - Present

Teacher Aide

- Provided academic support to students by assisting with assignments, grading, and clarifying course material.
- Helped maintain an engaging and productive learning environment by supporting teachers in classroom management.
- Assisted with administrative tasks, ensuring smooth day-to-day operations within the school.

Campion Education

Nov 2023 – Feb 2024, Nov 2024 - Feb 2025

Senior Customer Service Representative

- Provided exceptional customer support across multiple seasonal periods, demonstrating reliability and in-depth product knowledge.
- Managed a high volume of customer inquiries via phone and email, ensuring efficient resolution of issues and maintaining high satisfaction levels.
- Assisted new hires by providing guidance and support, leveraging experience to improve team efficiency.
- Processed complex order modifications, including additions, deletions, and refunds, while maintaining accuracy in a fast-paced environment.

Projects

Personal Portfolio Website

basillsabu.com

- Designed and developed a fully responsive portfolio website using HTML and CSS to showcase professional experience and projects.
- Implemented semantic markup and modern styling for a clean and user-friendly interface.

Gait Analysis Using STM32 & MATLAB

- Developed a gait analysis system utilizing force-sensitive sensors and MATLAB for processing noisy VGRF data.
- Implemented time-frequency analysis, filtering, and gait parameter estimation to extract key biomechanical features.
- Conducted data visualization to enhance the interpretability of gait patterns.

STM32 Audio Processing DAQ System

- Designed and built a real-time audio processing system using an STM32 microcontroller for data acquisition.
- Implemented ADC, DAC, and serial communication for signal analysis.
- Developed a Python-based CLI to interact with the system and process audio signals.

Education

Monash University Clayton

Feb 2023 - Present

Bachelor of Electrical and Computer Systems Engineering

- Gaining hands-on experience with MATLAB, Python, C, and C++ for engineering applications.
- Developing expertise in embedded systems, signal processing, circuit design, and machine learning.
- Collaborating on team-based projects, applying engineering principles to tackle real-world challenges.

Lighthouse Christian College

Feb 2014 - Dec 2022

VCE Certificate

- Achieved strong results in English, Further Mathematics and Mathematical Methods.
- Developed problem-solving and analytical thinking skills through rigorous coursework.
- Participated in STEM competitions such as the Australian Mathematics Competition and achieved multiple Distinctions.

Skills

Languages	Python, C, C++, MATLAB, CSS, HTML, MIPS, MARIE
Education	Teaching, Mentorship, Curriculum Guidance
Leadership	Management, Collaboration, Strategy, Organization