

NIRMAL BANDARA

+94 70 261 4618 | mrsanbandaraprofessional@gmail.com | LinkedIn | GitHub | Youtube | Portfolio

EDUCATION

B.Sc. (Honours) in Computer Science and Engineering

2023 – Present

University of Moratuwa, Moratuwa, Sri Lanka

Expected Graduation: 2028

- **Cyber Security Stream** – Currently in 2nd year of study, specialising in Cyber Security
- **GPA: 3.62** – Currently in 2nd year of study
- **Dean's List** – Achieved in Semester 1 for academic excellence
- Relevant coursework: Cyber Security, Operating Systems, Computer Networks, Data Structures & Algorithms, Database Systems, Discrete Mathematics, Computer Architecture, Object-Oriented Programming

G.C.E. Advanced Level – Physical Science Stream (Mathematics)

2020 – 2022

Kegalu Vidyalaya, Kegalle, Sri Lanka

- **Results: Combined Mathematics (A), Physics (A), Chemistry (A)** – All three A passes
- **Z-Score: 2.8080 | District Rank: 1st | Island Rank: 43rd**

G.C.E. Ordinary Level

2015 – 2019

Kegalu Vidyalaya, Kegalle, Sri Lanka

- **8 Distinctions (8A's)** across all 8 subjects

TECHNICAL SKILLS

Languages: Python, Java, Bash, C, C++, JavaScript, TypeScript, Dart, HTML/CSS, SQL, VHDL, $\text{\LaTeX}$

Tools & Platforms: Git, GitHub, Linux (Arch), VS Code, IntelliJ IDEA, MySQL, Wireshark, Nmap

Concepts: Cybersecurity Fundamentals, Network Security, Linux System Administration, Penetration Testing Basics, Cryptography, Object-Oriented Programming, Data Structures, Networking Protocols (TCP/IP, DNS, HTTP)

Soft Skills: Problem Solving, Team Collaboration, Communication, Time Management, Teaching, Self-Learning

PROJECTS

SecureScan – API-Managed Network Scanning Platform (Ongoing) | *Go, Ballerina, Next.js, APIs, PostgreSQL, Docker* | GitHub

2026

- Developing a secure, full-stack network scanning platform that integrates a Go-based scanner engine with Ballerina services, WSO2 API management and identity, and a Next.js frontend
- Implementing target validation, scan limits, authentication, throttling, result persistence, and containerised deployment with a strong focus on secure-by-design engineering

Port Scanner | *Go, TCP, Concurrency, CLI* | GitHub

2026

- Built a lightweight TCP port scanner in Go with concurrent goroutine-based workers for high-speed scanning
- Supports configurable port ranges and adjustable thread counts via CLI flags with real-time open port output

Encryption Decryption Tool | *Python, AES-GCM, RSA, Docker* | GitHub

2026

- Implemented AES-256 symmetric encryption, RSA-2048 asymmetric key pairs, and a hybrid mode combining both – mirroring the approach used in TLS and PGP
- Containerised with Docker for portable, dependency-free deployment across environments

- Password Strength Analyzer** | *Python, tkinter, hashlib, REST API* | GitHub 2026
- Built a real-time password evaluator with entropy calculation and breach detection via the Have I Been Pwned API using k-Anonymity
 - Developed a responsive tkinter GUI with a live strength meter, colour-coded scoring, and threaded API calls to keep the interface non-blocking
- Mathematics Educational Platform** | *Content Creation, Education* | Youtube 2024
- Launched a YouTube-based initiative focused on Advanced Level Combined Mathematics for Sri Lankan national curriculum students
 - Analysed and solved complex past paper problems to make advanced mathematical concepts accessible

EXTRACURRICULAR ACTIVITIES

- Capture the Flag (CTF) Competitions** Finalist – Top 5 Placements
Cybersecurity Competitions Ongoing
- Consistently advanced to the final rounds of multiple CTF competitions, achieving placements between 4th and 6th and securing top-five finishes
- SLIOT Event – Logistics** Department Event with SLT Mobitel
Logistics & Operations 2026
- Assisted with logistics management for the SLIOT event organised by the department in partnership with SLT Mobitel
- Sakura Event – Organising Committee** CSE Department Event
Event Organisation & Coordination 2025
- Organised and assisted in conducting the Sakura event held by the department
- Mathematics Teaching – Advanced Level** School (Temporary Position)
Volunteer Teaching 2023
- Taught Advanced Level Mathematics for two months to address a staffing shortage at a local school
- Advanced Level Mathematics Seminars – KeSS** KeSS
Academic Outreach 2023
- Conducted several seminars on Advanced Level Mathematics in collaboration with KeSS
- Taekwondo – National Championship** National Level
Martial Arts 2021
- Competed at the national level and secured a Bronze Medal (3rd place)
- Athletics – Shot Put & Discus Throw** Provincial Level
Sports 2020
- Achieved provincial-level placements in both shot put and discus throw events

CERTIFICATIONS & ACHIEVEMENTS

- Google Cybersecurity Certificate – Google** Online
Certificate of Completion 2026
- National Mathematics Olympiad**
Achievement 2019

LANGUAGES

Sinhala: Native | **English:** Proficient (Reading, Writing, Speaking) | **Japanese:** Currently Learning