

Hu Bowen

Student

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ABOUT ME

Self-motivated learner with experience in a variety of tech fields, including cybersecurity, cloud, AI and embedded systems. Adept at software and application development and excels at adapting to new and emerging technologies. Dabbles in red-teaming through web and binary exploitation.

EDUCATION

Diploma in Cybersecurity & Digital Forensics

04/2024 – present

Ngee Ann Polytechnic

- cGPA: 4.00
- DSTA Polytechnic Digital Scholar
- NullSec Vice-President (Cybersecurity Interest Group)

COMPETITIONS

GreyCTF Finals 2024 (11th Place)

NUS Greyhats

- First blooded a web challenge and second blooded another
- Got exposed to hardware hacking with a custom STM32 badge

The InfoSecurity Challenge 2023 (Level 6)

Centre for Strategic Infocomm Technologies

- Challenging CTF that tested a variety of categories such as reverse engineering, binary exploitation, cryptography, forensics and web exploitation
- Part of the top 5% of the participants that completed level 6 and above

National Olympiad of Informatics (Participation)

National University of Singapore

- One of the 8 students selected to represent Clementi Town Secondary
- Learnt a variety of data structures and algorithms such as linked lists, hashmaps and binary sort
- Improved my computational thinking and code efficiency through gauging the time complexity of my code

PROJECTS

SimpleOS

05/2022 – 06/2022

Assembly & C

- Developed a bare-metal operating system from scratch to learn the inner workings of an OS
- Contains a simple CLI with a snake game built in

BB84 Chat Application

01/2024

Python & Numpy

- Implemented a quantum key distribution algorithm for my cryptography assignment
- Came up with a custom protocol to send the quantum data in a classical state

Canteen Queue Estimator

06/2022

Python & Flask

- Uses AI (YoloV5 crowdhuman) to accurately count the canteen queue
- Sends the data to a centralised webserver running on a Raspberry Pi to display

SKILLS

Python

- Machine Learning (OpenVINO, HuggingFace)
- Data processing (Numpy, Pandas)

Web Development

- Created sites using SvelteKit, Next.JS

Rust

- High performance webservers (Axum)
- Multithreading (Tokio)

Binary Exploitation

- Successfully exploited ret2libc and srop challenges