

EDUCATION

NATIONAL UNIVERSITY SINGAPORE

Computer Science | B. Comp | 2027

- **Overall Champion** of **Ripple, NUS Fintech Summit 2024 Hackathon**
- **Top Student** of IS1108, awarded by NUS, School of Computing
- Languages: Python, Java, JavaScript, Typescript, Solidity, C, C++
- Core Modules: Functional, Object-Oriented Programming, Discrete Structures, Algorithms and Data Structures, Information Security, Computer Networking

VICTORIA JUNIOR COLLEGE

GCE A Level | Rank Points: 90/90

- **90/90 (Full Distinction)** with **additional H3/S-Level Chemistry**
- Nominated and participated for **2019 Singapore Physics Olympiad**

PROFESSIONAL EXPERIENCE

AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH

Jan 2025 – Jun 2025 | AI Research Intern

- **Lead** development of internal framework of **Explainable AI** for black-box demand forecasting models using **pyTorch** and **Nixtla** framework
- Refactor Machine Learning model with common **architecture and design patterns** for production and handover to industry partners
- Literature Review to compare optimal service provider for client on **Enterprise Resource Planning (ERP)** system and **Robotic Process Automation (RPA)**

NATIONAL UNIVERSITY OF SINGAPORE

May 2025 – Jun 2025 | Teaching Assistant

- **Manage** students in their independent software development projects and **mentored** two of fourteen teams to top 5% of cohort

SMARTKARMA

Feb 2023 – Jul 2023 | Data Analyst Intern

Testimonial: <https://virusrwj223.github.io/hm/>

- Develop data pipeline using **Bloomberg terminal** and open-source **BLPAPI API package** to internal **PostgreSQL** database with **Excel** visualization
- Implement website tracking strategies to production application utilizing **Google Analytics 4**
- Automated and increase visibility of company webinars using **Zapier** and **Hubspot**

RESEARCH

- **Data driven frameworks for enhancing supply chain resilience**, shadowed under Dr Liu Ning (A*STAR)

SELF INITIATED PROJECTS

Oma

May 2024 - Current

Backend, Quality Assurance, DevOps lead | AI

- **Native** recommendation app that suggests dining places using AI to learn your preference
- Recommendation algorithm built using **PyTorch**
- Adapted **MERN** stack using **NEXT.JS** and **TRPC** on **Turborepo**
- **Playwright testing** framework for unit and integration test in managing Quality Assurance
- Native application and ML model hosted on **Microsoft Azure**

User guide: <https://docs.google.com/document/d/11SEPNa5Z1mEtLLBuoHdEIO-Y0rPrTm0plZOKLHMxr8/edit?usp=sharing>

BAR-E (previously BASA)

Dec 2023 - Jan 2024

Overall Team Lead and Tech Lead | Blockchain

- **Winning** submission for **Ripple, NUS Fintech Summit 2024 Hackathon**
- dApp that connects landlords and tenants through contracts on the **Ethereum blockchain**
- First iteration of project built in Summer 2023 found here: <https://virusrwj223.github.io/BASA/>
- Usage of **Solidity** to prepare contracts and **Python Brownie** framework to deploy contracts
- Usage of **React.js** to craft user interface

Website: <https://bar-e.onrender.com/>GitHub: <https://github.com/Virusrwj223>Website: <https://www.hrishiraj.site>LinkedIn: <https://www.linkedin.com/in/hrishiraj-mandal>