

# KOH SHAN SHUN, RICHIE

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Portfolio: [Richie Koh — Software Developer Portfolio](#)

## PROFESSIONAL SUMMARY

Motivated Diploma in Information Technology student (Nanyang Polytechnic, expected graduation 2028) with hands-on experience delivering Python Flask web applications, SQL database solutions, and responsive UI designs. Applied OOP principles and agile methodologies in team projects to build maintainable, scalable systems supporting efficient handling in high-volume scenarios. Strong collaborator with proven ability to translate user needs into impactful digital solutions.

## EDUCATION

### Diploma in Information Technology

Nanyang Polytechnic, Singapore | Expected Graduation: 2028

**Relevant Coursework:** Web Development Project | UX Design in Web Development | Database Design and Administration | Programming | AI and Data Analytics

## TECHNICAL SKILLS

**Programming:** Python (Flask, SQLAlchemy), JavaScript

**Web Technologies:** HTML5, CSS3, Bootstrap 5

**Databases:** MySQL (Workbench), Oracle Database

**Development Practices:** CRUD applications, RESTful concepts, Database schema design, OOP (classes, encapsulation, inheritance, polymorphism), User-centric UI/UX, Maintainable & extensible code

## CERTIFICATIONS

- **AI Fluency: Framework & Foundation** - Anthropic
- **Web Development Basics (MDLPT-268)** - International Business Machines
- **Python Hackathon - RGB Face Filter Project** - China Tech Company

## ACADEMIC PROJECTS

### Customer Ticketing System

Web Development Project (AY2025 S2)

**Tech Stack:** Python, Flask, SQLAlchemy, Bootstrap 5, CSS

**Role:** Lead Developer

- Designed and implemented OOP-based ticketing module using encapsulation for secure data handling and inheritance for reusable components
- Built structured forms with comprehensive input validation and integrated database storage with user authentication
- Improved issue traceability and response efficiency; reduced manual support reliance in simulated high-volume scenarios

### Table Tennis CCA Website

UX Web Project

**Tech Stack:** HTML5, CSS3, JavaScript, Bootstrap 5

**Role:** Front-End Developer

- Built fully responsive website from scratch applying UX principles for intuitive navigation and visual hierarchy
- Implemented mobile-first design with interactive elements and structured sections (events, achievements, contacts)
- Created centralized platform enhancing visibility and accessibility; improved user engagement through modern interface

## WORK EXPERIENCE

### Part-Time Tutor (Private/Ad-hoc)

Singapore | 2025 - 2026

- Taught Primary Chinese and Mathematics to 10+ students of varying abilities with adapted teaching methods

- Developed strong communication, patience, and responsibility - transferable to technical collaboration and explaining complex concepts

## LEADERSHIP & EXTRACURRICULARS

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### **Class Vice Representative**

*Nanyang Polytechnic | 2025 - Present*

- Coordinated communications and resolved issues for 30+ classmates and lecturers; demonstrated reliability, teamwork, and ownership in group settings.

### **Executive Committee Member**

*Robotics Club (Secondary School)*

- Led junior training sessions and assisted in event planning/competitions; gained hands-on experience with Scratch, breadboards, and LEGO Mindstorms.

## ACHIEVEMENTS

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**First LEGO League:** Participation Award

**Hackathon Competition:** 4th Place

## LANGUAGES

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- **English:** Fluent - written & spoken
- **Mandarin:** Native - spoken & written