Ryan Tan Jin Yuen

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Education

National University of Singapore (NUS)   Aug 2023 – Dec 2026

- Awarded **NUS Merit Scholarship** recipient for academic excellence.

- Studying Computer Science, completing exchange program at **Hong Kong University of Science and Technology**.

Anglo Chinese Junior College (ACJC)   Jan 2019 – Nov 2020

- Achieved **6 distinctions** with **90 Rank Points**.

- Served as **Vice-Captain** of the ACJC Bowling Team.

- Awarded **Edusave EAGLES Award** and **Scholastic Merit Award**.

Technical Skills

- **Languages:** Python, Java, JavaScript, TypeScript, SQL, Rust

- **Frameworks & Tools:** Spring Boot, Docker, Kubernetes, Node.js, Flask, ReactJS, Git, AWS

- **Additional:** OpenCV, YOLO, Apache Nifi, Supabase, SonarQube

Work Experience

Crédit Agricole (ISAP, Singapore)   Jan 2025 – Present
Software Engineer Intern

- Developed and optimised a AWS-S3 compatible, scalable **data storage solution** using **Rust, PostgreSQL, Warp**.

- Built an S3 API emulation layer, enabling compatibility with AWS SDK calls such as GET, PUT, and multipart upload for large files.

- Ensured **99.9% uptime** through rigorous testing and debugging using **Cucumber BDD**.

Projects & Hackathons

NUS Hack Roll — OpenCV, Python, JavaScript, Supabase, Telegram   Jan 2025

- Built a **Telegram bot** to track shower habits, logging over **50 user entries**.

- Used Chrome extension API to retrieve telegram data, preventing site visits for users.

- Implemented QR code-based interactions to start and stop shower sessions.

- Integrated machine learning verification to analyse images, using a YoloV8 object detection algorithm.

PSA Code Sprint Hackathon – Node.js, Python, Supabase, OpenAI   Oct 2024

- Led a **72-hour hackathon**, built a Next.js and Python-based port operations platform.

- Designed a real-time data pipeline integrating weather forecasts, historical events, and news using XWeather, OpenWeather, and OpenAI APIs.

- Planned feature enhancements, including user authentication and personalised alerts based on geographic location.

ReflectiveMinds – React.js, Python, Flask, MySQL   May 2024 – Jun 2024

- Developed an **AI-powered journaling app**, classified as **Apollo-11 (Advanced)** level.

- Utilised Python Flask, MySQL databases, ReactJS framework Docker services to run the whole web application.

- Integrated OpenAI API, to auto generate journaling prompts.

- Achieved **80% test coverage** through unit and end-to-end testing using JEST, PyTest and SQLite.

FootballVision – Python, OpenCV, Ultralytics   May 2024 – Jun 2024

- Created an **AI-driven football analysis tool** for real-time player detection and image processing, programmed using **Python**.

- Implemented **YOLOV8** object detection algorithm, **OpenCV**, **ByteTrack**, **SciKit** for tracking and colour segmentation.

- Implemented player tracking and object classification with **95% accuracy**.