

# Isaac Ong

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## EDUCATION

- **National University of Singapore, NUS College (Honours College)** Aug 2024 – May 2028
  - Bachelor of Computing in Computer Science (Specialization: Database Systems); GPA: 5.0 / 5.0
    - **Dean's List (AY25/26 Sem 1)**: Top 5–10% of the cohort for meritorious academic achievement.
    - **Sugar Industry of Singapore Prize (AY24/25)**: Awarded to top two performing first-year students in FOS.

## EXPERIENCE

- **NVIDIA Student Ambassador Programme** Aug 2024 – Aug 2025
  - NVIDIA AI Technology Centre (NVAITC)
    - **Multinational Team Experience**: Built a nutrition chatbot with a multinational team using a Supervisor RAG Architecture using LangChain and NVIDIA NIMs to analyse food intake and provide recommendations.
    - **Deployed Interface and Presented Demos**: Containerised, deployed and showcased the chatbot at NVAITC events, achieving 100% SQL and 75% Neo4j pairwise evaluation accuracy.
- **Teaching Assistant CS1010X** Jan 2025 – Jun 2025
  - National University of Singapore
    - **Instruction & Competition Design**: Mentored a group of 7 students through code reviews and marking while spearheading the design and implementation of a gamified algorithm competition for 56 participants.

## PROJECTS AND HACKATHONS

- **Epstein's LinkedIn Files - Privacy Redactor** Jan 2026
  - Hack&Roll 2026 – Browser Extension (GitHub)
    - **Privacy Redaction Tool**: Built a Manifest V3 extension to redact eyes and names on LinkedIn using a MediaPipe WASM pipeline for facial landmarks and a TreeWalker DOM traversal.
- **NetPulse - Network Diagnostic Tool** Dec 2025
  - Personal Project – Desktop Application (GitHub)
    - **Java Full-Stack & Networking**: Implemented a cross-platform JavaFX and Spring Boot desktop application utilizing multi-threaded socket programming to perform network diagnostics and performance metrics.
- **Bluesky Toxicity Tracker** Oct 2025
  - Personal Project – Visualisation Website & Data Engineering Pipeline (GitHub)
    - **ETL & Cloud**: Engineered an automated Airflow pipeline on AWS EC2 to ingest, score and store 100,000+ Bluesky posts daily in PostgreSQL, visualized via a Dockerized Next.js dashboard.
- **NUS Cat Classifier** May 2025
  - Personal Project – Full-Stack Computer Vision Website (GitHub)
    - **Full-Stack Webdev & Computer Vision**: Developed a custom PyTorch CNN with 85% accuracy to identify campus cats and manage individual profiles via a Vite-React and Flask/MongoDB stack.

## EXTERNAL ACTIVITIES

- **Academics Team Committee Member (Acads Resource)** Sep 2025 – Present
  - NUS College Club
    - **Website UI Redesign**: Led the UI redesign of the official NUSC course review portal to streamline module planning and enhance accessibility.
- **Start NOW! 2025 Online Orientation Vice Project Director** Dec 2024 – Aug 2025
  - NUS College Club
    - **Programme Coordination & Oversight**: Designed and executed NUS College's flagship online orientation for 200+ participants, coordinating Zoom sessions and overseeing the launch of a Telegram bot for interactive games.

## PROGRAMMING SKILLS

**Languages**: Python, Java, C/C++, SQL, Typescript  
**Frameworks**: React, Flask, Spring Boot, Pandas, Airflow

**Tools**: MongoDB, Docker, Tableau, AWS