

# Yan Yu

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## COMPUTER SCIENCE STUDENT

Software Engineer with interests in full-stack development, cloud computing, and artificial intelligence. Actively seeking software engineering internship opportunities for Summer 2026.

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## EDUCATION

**DigiPen Institute of Technology Singapore**

**Aug 2023 - Sep 2027**

BSc (Hons) in [Computer Science in Real-Time Interactive Simulation](#)

**Temasek Polytechnic**

**Apr 2018 - Apr 2021**

Diploma in [Game Design & Development](#)

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## TECHNICAL SKILLS

**Languages:** C++, C#, C, Python, HTML, CSS, JavaScript, SQL, PHP

**Frameworks & Libraries:** Unity, OpenGL, React, Node.js, Tailwind CSS

**DevOps & Cloud:** Docker, Docker Compose, AWS, Git, GitHub, GitHub Actions, Linux

**Tools & Systems:** Visual Studio, CMake, MySQL, OOP

**Networking & Security:** Server Administration & Management, Networking, Cybersecurity

**Project Management Tools:** Jira, Trello, Notion, Slack

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## SOFT SKILLS

Communication

Highly Adaptable

Professionalism

Team Player

Conflict resolution

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## PROFESSIONAL EXPERIENCE

**Research Assistant (Part-Time)** | Research, AR/VR, C#, Unity

**Mar 2025 - Present**

*Singapore Institute of Technology*

- Collaborated with an interdisciplinary team from SIT and the University of Glasgow to research quantum computing concepts and integrate them into XR-based educational content.
- Designed and developed an interactive, game-based XR environment in Unity to teach quantum computing through engaging educational experiences.

**Game Developer (Intern)** | HTML, CSS, Javascript, C#, Unity

**Oct 2020 - Feb 2021**

*ACKTEC Technologies*

- Developed various cross-platform educational games using HTML and JavaScript, enabling compatibility across PC, Android, and iOS.
- Migrated and optimized an iOS app in Unity for cross-platform deployment, preserving core functionality and user experience while improving performance by 42%.

**Game Developer (Part-Time)** | C#, Unity

**Oct 2019 - Jan 2020**

*ACKTEC Technologies*

- Designed and developed a Unity-based bomb defusal training game for a client, creating interactive scenarios based on real-world procedures.
- Implemented gameplay mechanics that tested players to use defusal tools correctly and in sequence, reinforcing procedural accuracy.
- Collaborated with 3D artists to integrate assets into the scene to create a realistic training environment.

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## PROJECTS

### Home Server Management | Linux, Docker, Networking, Security

[Website](#) [Demo](#)

March 2023 - Present

- Set up, configured, and maintained a self-hosted linux server for personal and experimental development projects.
- Deployed and managed containerized services using Docker and Docker Compose, streamlining the hosting of cloud storage, media streaming, and other applications.
- Applied Linux security hardening practices, including VPN-based remote access and reverse proxy configuration with Nginx to control and secure service exposure.

### Traffic Decision Intelligence Platform | Python, AWS

[Website](#) [Demo](#)

March 2025 - April 2025

- Developed a traffic analytics dashboard for urban traffic management as part of a 4-person team, placing Top 10 in the ITSS x LTA Hackathon 2025.
- Built a data-driven web app using Python and Streamlit, hosted on AWS EC2 with S3 for storage and IAM for secure access.
- Automated data ingestion and transformation using AWS Lambda and AWS Glue, supporting near real-time updates.

### Custom 2D Game Engine | C++, OpenGL, Github, Notion

[Website](#) [Demo](#)

Aug 2024 - April 2025

- Designed and developed a custom 2D game engine in C++ from scratch for a cooking simulation game, collaborating within a cross-functional team of engineers, designers, and artists throughout the software development life cycle (SDLC).
- Led graphics development, architecting and implementing all rendering systems using OpenGL, with a focus on performance optimization through techniques such as instanced rendering.
- Built custom shaders for debugging visualization and font rendering.

### Notes Taking Application | Unity, C#, PHP, Raspberry Pi

[Website](#) [Demo](#)

March 2022 - December 2022

- Designed and developed a personal note-taking and task management app using Unity and C#, with cross-platform support for both desktop and Android devices.
- Utilized a lightweight backend using PHP and MySQL, hosted on a Raspberry Pi Zero 2 W, selected for its low power consumption and 24/7 availability.

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## AWARDS AND CERTIFICATIONS

### Director's List - Temasek Polytechnic

Academic Year 18/19

### Right Impact Prize - Temasek Polytechnic

### Google Cybersecurity Specialization

### Business Finance Course - NTU

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## PERSONAL DETAILS

**Nationality:** Singaporean

**Age:** 23

**Gender:** Male

**Marital Status:** Single

**Languages:** English (Native), Chinese (Fluent), Japanese (Elementary)