

# Brendan Ang Wei Jie

brendanawjang@gmail.com | [Website](#) | [Github](#) | [LinkedIn](#)

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## Education

**Nanyang Technological University**  
2020-2024

**Bachelor of Engineering in Computer Science | Bachelor of Business in Business Analytics**

GPA: 4.58/5.0 | Dean's List 2021 Business | Technical Director, Open Source Society

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## Work Experience

**HPE Aruba Networking**

Software Firmware Engineer Intern

01/2024 - Present

- Part of the operating system diagnostics team for network switches working primarily in **C** and **Python**.
- Implemented features to verify device health such as eMMC and PCIe switches through I2C and FPGA APIs.
- Developed unit, feature and component tests, helping to improve code line coverage by 40%.
- Debugged and fixed memory corruption issues using GDB.

**Beep Technologies**

IoT Engineer Intern

06/2023 - 12/2023

- Lead the development of 2 major versions of an Android IoT EV POS application in **Java** and **Kotlin**.
- Designed and implemented stability features to handle scenarios such as power and network failure reducing production defects by 40%.
- Profiled and debugged out-of-memory errors using heap dumps, reducing overall memory resource footprint.
- Improved visibility of failure indicators by implementing key event logging.

**Shopee**

Software Engineer Intern

08/2022 - 12/2022

- Built and designed features for an automatic script in **Go** for internal API failure detection, verdict and reporting, helping to increase the failure reporting efficiency for the Order team.
- Detected and coordinated fixes for API bugs, improving UAT environment stability rates from 60% to 90%.

**Scoot**

Full Stack Developer Intern

05/2022 - 07/2022

- Developed frontend features in **Angular** to allow customers to change flights and review their booking.
  - Fixed bugs in API endpoints using **.NET C#**.
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## Projects

**Emulation Framework for Federated Learning**

Final Year Project

[Github](#)

- Built a framework in **C** to allow users to bootstrap federated machine learning clients running on emulated hardware with QEMU and ZephyrOS.
- Implements client-server federated averaging over basic gradient descent
- Supports network simulation and collection of aggregated metrics such as TCP network statistics.

**Semantic Search Plugin**

Personal Project

[Github](#)

- Built and maintaining a tool in **Rust** and **TypeScript** supporting semantic search for Obsidian.md, a popular note taking application.
- Implemented a simple interface and algorithm allowing users to convert their notes into tokenizable sections, and use OpenAI's embedding API to create embedding vectors for semantic search.

**NTU DownDetector**

Open-Source Society Project

[Github](#) - [Website](#)

- Led a student developer team of 6 people in building a status reporting and monitoring web application for school services in **JavaScript**.
  - Developed a mvp which allowed students to authenticate, view data charts and report their issues.
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## Skills

Vim | C | Rust | Kotlin | Java | Javascript | Go |