Brendan Ang Wei Jie

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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

Work Experience

Marvell Technology
System Engineer

09/2024 - Present

- Automotive Ethernet team, primarily working on ensuring BASE-T1 PHY Compliance to the IEEE and OpenAlliance. Specifically, in depth into 10BASE-T1S standards.
- Built platform capabilities on the Zynq Ultrascale (**C++** and a little bit of **Verilog**) to execute test plans, such as packet generation, distortion patterns.
- Created test automation tooling in Python for signal decoding and report generation.
- Developed a modelling and formal verification methodology, using SystemVerilog Assertions, TLA+ and SystemC to investigate design bugs.

HPE Aruba Networking
Software Firmware Engineer Intern

01/2024 - 07/2024

- 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%.

Beep Technologies
IoT Engineer Intern

06/2023 - 12/2023

- Led the development of 2 major versions of an Android IoT Electric Vehicle Charging POS application in **Java** and **Kotlin**.
- Designed and built features to handle power and network failure, conducted memory profiling, overall reducing production defects by 40%.

Shopee
Software Engineer Intern

08/2022 - 12/2022

- Part of the backend API team and responsible for building and designing an automatic script in **Go** for internal API failure detection, verdict and reporting.
- Detected and coordinated fixes for API bugs, improving UAT environment stability rates from 60% to 90%.

Projects

Emulation Framework for Federated Learning
[Github](#)

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

Semantic Search Plugin
[Github](#)

- Built and maintaining a tool in **Rust** and **TypeScript** supporting semantic search for Obsidian.md, a popular note taking application.

Skills

Vim | C | Willing to dive into anything