

POH WEI PIN

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EDUCATION

National University of Singapore
Bachelor of Engineering - Computer Engineering

Aug 21 - Present

- **Expected Graduation Date: May 2025**
- Dean's List AY22/23 S1
- **CS Coursework:** Algorithms & Data structures, Databases, Operating Systems, Networks and Software Engineering OOP
- **EE Coursework:** Digital Design, Circuits, Signal & Systems, Robotics

WORK EXPERIENCE

Software Engineering Intern, TikTok

May 24 – Aug 24

- Engineered a Golang-based synchronization service as a fail-safe mechanism, ensuring accurate, timely reflection of the status of incident events between the incident management and global SLI observation platform, boosting the reliability of ByteDance/TikTok's SRE infrastructure
- Improved SLI monitoring platform alert system by using webhooks to detect acknowledgements, and recovery of critical SLI alerts across multiple external platforms, boosting alert system capabilities and reliability.
- Built SQL-driven dashboards and datasets for real-time incident monitoring, enabling SREs to assess number of incidents within configurable intervals, enhancing infrastructure stability analysis and rapid response to spikes
- Added robust OpenAPI endpoints for SRE Alert Platform, driving seamless integration with external business units. The feature raised developer productivity and reduction in integration time.
- Created a periodic retrieval service to fetch SLI alerts for 300+ services across multiple regions for comparison, enabling SREs to quickly identify and correct missing or misconfigured alerts, reducing human errors.

Software Engineering Intern, Motional

May 23 - Nov 23

- Streamlined AV deployment by integrating eight critical vehicle component version retrieval services into the deployment agent using UDS, HTTP, and Linux Popen in C++, enabling vehicle operators to automatically track firmware and software version compatibility.
- Automated firmware updates by implementing over-the-air flashing support for the Aurix vehicle component within AV deployment stack from AWS cloud, eliminating the need for manual, time-consuming updates and significantly improving operational efficiency.
- Developed a custom logger in C++ offering custom log prefixes and severity to support multi-threaded UDS queries log in a much more readable way.
- Migrated AV Deployment Agent CI/CD Pipeline from Jenkins to GitLab with a 30% improvement in pipeline completion time.
- Implemented parallel software packages retrieval to AV deployment service cutting down initial stack deployment time by half.

Software Engineering Intern, Autove Pte. Ltd. (Startup)

May 22 - Aug 22

- Built an operator app with full order workflow and real-time robot hailing, and a user-facing eCommerce app integrated with the delivery service robot, enabling live order tracking and status updates using Flutter, Node.js, Telegram Bot, and Firebase.

SKILLS

- Languages: (Proficient) C++, C, HTML, CSS, (Familiar) Go, Typescript, Dart, Verilog, Python, Java, Bash, SQL
- Skills: GCP, AWS, MongoDB, Express, Node.js, React.JS, Networking, Linux, OS, Distributed Systems

PROJECTS

Personal Website: pohwp.dev (For more information about me & my projects)

SuperCanvas - Chrome Extension

Mar 23 - Present

- Developed a productivity Chrome extension leveraging Canvas API aimed at improving students' experience in Canvas LMS with more than 340 active users to date
- Enables students to keep track of assignment deadlines with automated completion tracking on the dashboard, color-coded deadlines countdown, and instant course files fuzzy search feature

Cloud Inventory Management System (Telegram App)

Feb 21 - Present

- Built a cloud inventory management system with Python, Google Cloud, and Telegram API, automating stock validation via OpenAPI and managing digital deliveries. Streamlined my eCommerce business, handling over 2,000 orders to date with seamless restocking and fulfilment.

Mercy Relief Content Management Platform

Sep 22 – Feb 23

- Google's Developer Student Club (Software Engineer) - Development of a content management system website for Mercy Relief, a worldwide disaster relief NGO using Next.JS and CSS

Audio Visual System BASYS3 FPGA Digital Design

Sep 22 – Oct 22

- Recognized as one of the top projects of the semester.
- Designed and implemented a mouse-based drawing canvas on an OLED display using Verilog allowing for smooth real-time graphic interaction.
- Developed a multifunctional digital stopwatch with lap timing capabilities and a whistle-based start/stop feature, enhancing user experience and functionality.

NUS Raffles Hall Residences Hall Web Application

Sep 21 - Mar 22

- Involved in the development of the Hall website and web app that caters to over 400+ residents using ReactJS and CSS.

PROFESSIONAL CERTIFICATION

- [Certified Google Cloud Associate Cloud Engineer](#) (Dec 2020 - Dec 2023)