

# PHOEBE LAU

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## WORK EXPERIENCE

**Systems on Silicon Manufacturing Company (SSMC) – Technology Development** Mar 2023 – Aug 2023  
*Internship Programme (VBA Automation, Semiconductor Operations, Technical Documentation)* Singapore, SG

- Developed Excel macros from scratch to streamline workflows, improving both efficiency and data accuracy.
- Managed wafer logistics, coordinating and handling wafers into and out of the fabrication plant for colleagues.
- Prepared and maintained weekly team reports, consolidating key metrics and progress updates for management review.

**IT Block – Tech Support** Jun 2021 – Aug 2021  
*IT Technician Intern (IT Hardware & Software Support, Research Skills)* Singapore, SG

- Manages and compiled weekly security reports to support ongoing risk monitoring and compliance.
- Assisted clients with troubleshooting and resolving technical issues across hardware, software, and network environments.
- Provided end-user IT support and services, ensuring timely resolution and clear communication.
- Coordinated and completed product deliveries to customers, maintaining accuracy and service quality.

## EDUCATION

**Singapore Institute of Technology (with University of Glasgow)** Sep 2024 – Oct 2027  
*Bachelor of Science in Computing Science*

- Coursework: Data Structure Algorithm, Embedded Systems, Database Systems, Operating Systems, Web Programming, ...

**Temasek Polytechnic** Apr 2022 – Mar 2024  
*Diploma in Computer Engineering, Specialised in IoT*

- Coursework: Full Stack Development, Data Visualization & Analytics, Robotic Process Automation (RPA), System & Network Integration, Mobile Device Applications Development, ...

**Institute of Technical Education College Central** Jan 2020 – Mar 2022  
*Higher Nitec in Electronics Engineering, Specialised in IoT*

- Coursework: Digital & Analogue Principles & Applications, Electrotechnology, Advanced Applied Electronics, ...

## PROJECTS

**ReKindle (Design/Innovation Challenge by Dell Technologies and Lion Befrienders)** 2025

- Built a containerized social platform using Docker to connect isolated seniors with peers and volunteers.
- Implemented real-time messaging, automated welfare check-ins, and event scraper to reduce social isolation and monitor senior wellbeing.

**Hospital Care with MQTT** 2025

- Developed an energy-efficient IoT system using Raspberry Pi with motion-triggered lighting and ventilation control, and automated medication dispensing functionality controlled via web application.

**Carousel Book Display Process Automation** 2024

- Developed an RPA automation using UiPath to streamline library cataloguing by extracting book metadata from web sources, validating cover images, updating carousel displays, generating detailed Excel reports, and delivering automated completion notifications through email with acquisition metrics.

**Bus Scheduling App with Android Studios** 2024

- Developed a real-time transit mobile application using Android Studio, PHP, and SQL featuring dynamic bus arrival predictions sorted by proximity, weather API integration, and administrative controls for schedule and user management.

## TECHNICAL SKILLS AND TOOLS

**Programming languages/frameworks:** Python, Java, C, C++, C#, JavaScript, SQL

**Web/App:** HTML, CSS, React, Node.js, REST APIs, Android Studio (Kotlin/Java)

**Data/Tools:** PostgreSQL, MongoDB, Excel, NumPy, Pandas, UiPath (RPA)

**IoT/Embedded:** Raspberry Pi, Arduino, MQTT, basic PCB soldering & electronic components

**DevOps/Platforms:** Git, GitHub, Docker, Kubernetes (K8s), Linux

**Concepts:** Data Structures & Algorithms, Object Oriented Programming, Operating Systems, Computer Networks, IoT, Microcontroller Applications, Embedded Systems

**Certifications:** Docker Fundamentals, Kubernetes Fundamentals, Google IT Support