

# LA WUN SHUN LETT [SHUN]

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## SUMMARY

Final-year Computer Engineering student at Singapore Polytechnic, graduating in May 2026. Skilled in data analysis, cloud computing, DevOps, and networking, with a solid foundation in both hardware and software. Experienced in mobile app development (Android), microcontroller programming (STM32, ESP32, Raspberry Pi, PIC), and IoT & 5G AIoT system integration. Eager to apply engineering knowledge in semiconductor systems, automation, 5G AIoT, and software development, with a strong interest in data analysis and software engineering roles upon graduation.

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## WORK EXPERIENCE

Associate Software Engineer Intern at Applied Instruments Pte. Ltd.  
(Mar 2025 – Oct 2025, Confirmed Placement)

- **Enhanced the Chemical Distribution Module (CDM)** by redesigning the UI/UX and configuring iFIX SCADA visualizations, **resulting in improved system usability and more efficient real-time monitoring** for semiconductor chemical mixing and distribution operations. Collaborated with colleagues on setup and testing, and contributed to the successful deployment and delivery of the module to India.
- **Designed and developed a GatePass Tracking Web Application** using PHP, MySQL, HTML/CSS, and JavaScript, **automating item tracking and service documentation to reduce manual handling and improve operational efficiency.**
- **Deployed and managed the GatePass web application using Docker containers** by configuring server networking, domain routing, and HTTPS access, **enabling secure, scalable, multi-user access within a local server environment.**
- **Assisted in optimizing databases and testing system updates for the GatePass web application** through validation and regression testing, **ensuring reliable and scalable system performance.**
- **Performed inventory audits and maintained warehouse records**, improving **data accuracy and traceability** of equipment and materials.
- **Assisted in troubleshooting and testing semiconductor manufacturing equipment**, supporting **system verification** during maintenance activities.

Part-Time Technical Assistant at Applied Instruments Pte. Ltd.  
June 2023 - March 2024

- **Supported cross-division software and engineering projects** during school holidays.
- **Built C# and C++ data-visualization UI/UX interfaces** for predictive-maintenance software, **improving equipment status clarity.**
- **Developed C# control animations** simulating wafer-transfer mechanisms, **enhancing operator training and visualization accuracy.**
- **Designed and fabricated PCB prototypes** using Autodesk Inventor and CNC milling, **supporting rapid hardware validation.**
- **Implemented a 3-axis CNC drilling simulation** using G-code, Arduino, servo motors, and controllers, **enabling demonstration and testing.**

Singapore Polytechnic

- Skilled in Data Analysis, Cloud Computing, and Networking, Integrating hardware and software for intelligent solutions.
- Hands-on experience in Mobile Application Development (Android), Full Stack Website Development, AIoT systems, and Microcontroller programming (STM32, ESP32, Arduino), UI/UX.
- Developed projects combining real-time data collection, web-based dashboards, and embedded system control.

#### Electives

- Conversational Mandarin 1
- Conversational Korean 1
- Internet of Things

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#### SCHOOL COURSEWORK & GROUP PROJECTS

- **Supermarket Self-Checkout System (DevOps / CI/CD | Python, MariaDB, Raspberry Pi)** – Developed an **IoT-based self-checkout system** with barcode scanning, database transactions, and automated receipt printing, improving checkout efficiency and **reducing manual cashier dependency**. (Demo: <https://youtu.be/h2f91rtcZLM>)
  - **SP Student Social Media Network Mobile Application (Android Studio, Firebase Realtime Database)** – Built a **mobile app prototype** with user authentication, posting, and real-time content updates, **enabling instant data synchronization and dynamic content retrieval**.
  - **Stock Market Web Application (HTML, CSS, JavaScript, API Integration)** – Created a **responsive stock-tracking web application** displaying simulated and real-time prices with charts, search filters, and interactive UI for **improved market data visualization**.
  - **Smart Pill Dispenser — STM32-Based Medication Management System (STM32, Embedded C++, Sensors & Actuators)** – Developed an **automated medication dispensing system with scheduled pill release and sensor-based verification**, reducing missed or duplicate doses and **improving medication safety for elderly and hospital use**.
  - **Sustainable Robot Car for Agriculture (Agro Bot)** (Arduino) – Designed an autonomous soil-sensing robot with navigation and control logic to support sustainable and automated farming practices. (Demo: [https://youtu.be/aBiyv\\_RG1k](https://youtu.be/aBiyv_RG1k))
  - **Final-Year Project** – Final-Year Project – 5G AIoT Smart City System (In Progress | Final Year Semester 2)
    - **5G AIoT Face Recognition Application** – Building a 5G-enabled AIoT door-access system performing AI-based facial recognition on live camera streams for low-latency smart access control.
    - **IoT Security System (ESP8266)** – Implementing encrypted communication and device integrity protection to enhance IoT system security.
    - **Smart City Infrastructure Integration** – Developing a Smart City environment by integrating Modbus devices and an industrial IoT gateway to organize heterogeneous sensors and enable scalable system deployment.
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## KEY SKILLS

- Programming Languages: C, C++, C#, Python, PHP, JavaScript
  - Web Development: HTML, CSS, MySQL, REST/API integration
  - Mobile Development: Android (Android Studio), Firebase, Java
  - UI/UX & Visualization: UI/UX design, data visualization, system animation
  - Embedded & IoT Systems: STM32, Arduino, Raspberry Pi, ESP8266, sensors & actuators
  - AIoT & Smart Systems: Edge AI concepts, face recognition systems, Smart City applications
  - DevOps & Deployment: Docker, Linux, CI/CD basics, HTTPS & server configuration
  - Systems & Networking: Networking fundamentals, system testing, troubleshooting
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## SOFT SKILLS

- Strong organizational and time-management skills
  - Clear professional and technical communication
  - Collaborative team player with cross-functional experience
  - Adaptable and quick learner in fast-paced environments
  - Detail-oriented with a structured problem-solving approach
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## ACTIVITIES

- Volunteer – Community & student support initiatives
  - DanceSport / Hip-Hop participant
  - Game Master / Vice Class Representative
  - Video editing and digital content creation
  - Academic and self-initiated engineering projects
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**Recommendation Letter from Applied Instruments Pte. Ltd. available upon request.**