林鴻全 (Hung Chuan Lin)

4F.-1, No. 3, Ln. 305, Pei'an Rd., Annan Dist., Tainan City 709004

Cellphone: 0926-593-172

Email: sprigga@gmail.com

Objective

Seeking a position as an IT Customer Engineer, leveraging extensive software development experience and system integration skills, combined with automation, and self-paced learning, to deliver robust solutions and enhance operational efficiency in a dynamic semiconductor environment.

Personality

Persistent in tasks, optimistic and outgoing, enjoys sharing insights with others, and adept at identifying potential issues and resolving them proactively.

Introduction

With over ten years of experience in system development that bridges both Operational Technology (OT) and Information Technology (IT), I specialize in software architecture, automated testing, equipment communication, and data analysis. I am proficient in key languages like C# and Python, with strong skills in embedded systems, automation control, IoT applications, and enterprise system integration.

In the OT domain, I have extensive experience in equipment control, production line automation, and building monitoring platforms (including Modbus protocol development), effectively boosting system stability and production efficiency.

In the IT domain, I am adept at developing internal enterprise systems, managing databases, and integrating digital processes to optimize operational efficiency and information flow.

I excel at problem-solving, system optimization, and cross-departmental collaboration. I can quickly pinpoint technical issues and deliver practical, actionable solutions. As a responsible and forward-thinking professional, I am dedicated to driving smart manufacturing, digital transformation, and IT/OT integration, using my innovative mindset and hands-on experience to continuously strengthen an organization's competitive advantage.

Experience

Project Engineer, Hon Hai Technology Group

Hsinchu, Taiwan — November 2017 – Present

Spearheaded software development and system testing for projects involving printers, medical devices, and EV in-vehicle systems, with expertise in embedded systems, automated testing, and IoT applications. Proficient in Python and C#, I excel at system performance optimization and issue resolution, ensuring product stability and high efficiency.

Key Projects:

- **Vector Signal Generator and RF Compensation Development**

  Developed control software for the SMCV100B instrument and RF compensation tools, enhancing automation and precision in testing workflows, optimizing wireless communication test performance.

  - Reduced manual operations through instrument control software, achieving test automation and improving efficiency and consistency.
  - Enhanced numerical accuracy via compensation mechanisms, ensuring stable and reliable test results.
  - Technologies: Python | Tools: Visual Studio Code | Environment: Windows 10
  - Duration: October 2024 – March 2025

- **EV In-Vehicle Testing System – VW Interface Board**

Developed Functional Circuit Test (FCT) and End-of-Line (EOL) software for EV in-vehicle systems, improving testing efficiency and accuracy.

  - Established and optimized test execution environments, enhancing test stability.
  - Streamlined test software execution time through optimized scripts and commands.
  - Conducted failure analysis to improve system reliability and reduce defect rates.
  - Technologies: Python | Tools: Visual Studio Code | Environment: Windows 10
  - Duration: June 2024 – September 2024

- **Automated Production Line – Baseline Modbus Communication Development**

Developed Modbus communication protocols to enable automated PLC testing on production lines, boosting productivity.

  - Designed and implemented PLC interaction mechanisms for fully automated testing workflows.
  - Improved test accuracy and line efficiency through real-time data processing.
  - Technologies: Python | Tools: Visual Studio Code | Environment: Windows 10
  - Duration: March 2024 – September 2024

- **3D Printer Software Development**

Designed functionality, print formats, and image misalignment correction for 3D printers, enhancing print precision and user experience.

- Replaced traditional PCL commands with JSON formats, increasing data processing flexibility.
- Implemented nozzle compensation and image editing algorithms to improve print quality.
- Technologies: C++, Python | Tools: Qt, Visual Studio Code | Environment: Windows 10, Linux Ubuntu
- Duration: March 2023 – February 2024

- **Medical Device – Nebulizer Control Firmware**

Developed control firmware for a nebulizer compliant with ISO 13485 standards, ensuring adherence to international medical device regulations.

- Technologies: C | Tools: MPLAB | Environment: Windows 10, Linux Ubuntu
- Duration: March 2022 – February 2023

- **Smart Wearable Device – Smart Insole**

Developed firmware for six-axis sensors and Bluetooth data transmission, alongside PC-side data reception and analysis tools.

- Technologies: C, Python | Tools: Anaconda, Visual Studio Code, MPLAB | Environment: Windows 10, Linux Ubuntu
- Duration: September 2019 – February 2022

- **Optomechanical Scanning System Failure Analysis and IoT Platform Development**

Developed an IoT-based fault prediction system using vibration signal analysis, enhancing equipment maintenance efficiency.

- Performed data preprocessing and anomaly detection with Python.
- Designed machine learning algorithms to strengthen equipment health monitoring capabilities.
- Technologies: Python | Tools: Pandas, Anaconda, Visual Studio Code | Environment: Windows, Linux Ubuntu
- Duration: August 2018 – July 2019

- **Printer Testing System – UI Tray Integration Measurement**

Developed a testing system for Sharp multifunction printers, improving test efficiency and accuracy.

- Designed a UI interface for A4/A3 paper switching and automated testing.
- Optimized testing workflows, reducing manual operations and testing time.
- Technologies: C++ | Tools: Visual Studio | Environment: Windows
- Duration: May 2018 – August 2018

- **Firmware Testing Support – Neo Printer**

Developed test programs and UI SIM message code for MFP (multifunction printer) testing.

  - Technologies: C++ | Tools: Visual Studio | Environment: Windows
  - Duration: December 2017 – April 2018

Application Engineer, Wistron NeWeb Corporation

Hsinchu, Taiwan — July 2014 – September 2017

Focused on internal enterprise system development and maintenance, handling requirements analysis, system design, database management, and automated report generation to enhance operational efficiency and data accuracy.

Key Projects:

- **Corporate Financial Reporting System** – Developed budget management and PR reconciliation systems, improving financial process transparency and accuracy.
- **HR Attendance and Overtime Alert System** – Designed an automated notification system compliant with labor regulations, providing preemptive reports.
- **PLM Contract Form Integration** – Established data exchange mechanisms between PLM systems and contract forms, enhancing QA department review efficiency.
- **Access Control and Catering System Upgrade** – Led legacy system migration, ensuring seamless operation of the new system and improving security and management efficiency.
- **CSR Survey System** – Developed a corporate social responsibility (CSR) survey and data analysis platform to support decision-making.
- Technologies: C#.NET, SQL, Stored Procedures | Tools: Visual Studio, SQL Server, Oracle Database | Environment: Windows Server

---

MIS Programmer, Microelectronics Technology Inc.

Hsinchu, Taiwan — May 2011 – June 2014

Developed and maintained internal enterprise systems and Business Process Management (BPM) platforms, enhancing process automation and data integration capabilities.

- **Electronic Form System Implementation** – Upgraded the legacy Lotus Notes e-form system, improving process management and data analysis functionalities.
- Technologies: JavaScript, jQuery, C#.NET, SQL | Tools: SQL Server, Oracle Database

---

Instructional Assistant, Dept. of Special Education, Chung Yuan Christian University

Taoyuan, Taiwan — July 2005 – August 2007

Managed daily administrative tasks for the department, including document processing, data management, meeting scheduling, and record-keeping, ensuring smooth academic and learning operations.

Education

Master's Degree, Graduate Institute of Information Management, Chung Yuan Christian University

2008 – 2011

- Project: Telematics Project for the Ministry of Education

Bachelor's Degree, Department of Information Management, Chaoyang University of Technology

2001-2003

- Project: Web Multimedia Development

Certifications

CCNA (2007): Certificate number: 393834169014JOBN

ISMS Auditor/ Lead Auditor Training Course (BS ISO/IEC 27001:2013): Certificate number: ENR-00792140

Languages

JLPT N4

TOEIC, Score: 530

Publications

Chih-Hao Lin; Pin-Han Ho; Hong-Chuan Lin , "Framework for NFC-based intelligent agents: a context-awareness enabler for social Internet of things" , 2014 , *International Journal of Distributed Sensor Networks* , vol.2014 , p.1-16.

Hong-Chuan Lin, "Enhancing Quality of Context Information Through Near Field Communication", 2011, *Chung Yuan Christian University*, Dissertation, p.1-72.

Chih-Hao Lin, and Hong-Chuan Lin, "The Practical Strategy and Analysis of Adopting Distance Learning Environment in Higher Education", 2009, *GCCCE 2009*, p.935-940.

GitHub	Grid Layout Editor: Python version→ https://github.com/sprigga/grid_layout_django C# version→ https://github.com/sprigga/grid_layout_csharp CAPTCHA CNN Recognition System: https://github.com/sprigga/CAPTCHA_CNN Mechanical Fault Diagnosis Feature Extraction Analysis : https://github.com/sprigga/vibration_signals Taiwan Stock Analysis MCP Server : https://github.com/sprigga/twstock_analysis?tab=readme-ov-file Taiwan Lottery AI Number Selection System: https://github.com/sprigga/taiwan_lottery_predict