Yi-Chien Chiang (江易謙)

No. 270, Dajin St., West Dist., Taichung City 40356, Taiwan
Phone: +886-956-236-659
Email: ethannt1000@gmail.com
LinkedIn: linkedin.com/in/yi-chien-chiang-8b32032a4
104 Profile: pda.104.com.tw/profile/share/eVOMLZ7Zw5dcfq9zziaQfyJurCfRXPES

Professional Summary

Dependable Software Engineer with 2 years of experience developing embedded systems and 1.5 years of expertise in Windows Presentation Foundation (WPF). Proficient in C/C++, C#, and Python, with emerging knowledge in Ardupilot, MAVLink, and ROS2. Demonstrated English proficiency (TOEFL iBT: 86) and a proven track record of delivering robust, high-performance solutions for aerospace and instrumentation applications.

Work Experience

Firmware Engineer

Taiwan Innovative Space Inc., Taipei, Taiwan
May 2023 – Present

- Developed and optimized firmware for rocket sensor systems, integrating accelerometers, strain gauges, and thermocouples to enable high-precision data acquisition and real-time processing for mission-critical aerospace applications.
- Ported C++ firmware to STM32 microcontrollers, enhancing peripheral integration (ADC, UART, SPI, I2C) and achieving modular, scalable codebases for multiple platform variants.
- Designed automated environmental stress screening (ESS) test software for rocket subsystems, streamlining validation under thermal, vibration, and vacuum conditions, improving testing efficiency by 50%.
- Collaborated with cross-functional teams to validate designs, analyze test results, and implement improvements, enhancing subsystem reliability.

Software Engineer

Good Will Instrument Co., Ltd., Taipei, Taiwan
September 2021 – March 2023

- Developed user interface for digital storage oscilloscopes using WPF with MVVM architecture.
- Implemented protocol decoding and analysis for CAN Bus, LIN Bus, I2C, SPI, and UART, enabling accurate signal visualization and debugging for end-users.
- Collaborated with hardware teams to integrate UI with oscilloscope firmware, ensuring seamless functionality across diverse device configurations.

Mechatronics Engineer

Huro Auto Co., Ltd., Taipei, Taiwan
March 2021 – September 2021

- Designed and maintained mechatronics systems for electric buses, focusing on CAN Bus network integration to ensure reliable communication between control units.
- Conducted diagnostic testing and troubleshooting of CAN Bus systems.

Education

Bachelor of Science in Automation Engineering

National Formosa University, Yunlin County, Taiwan
September 2015 – June 2019

Vocational High School Diploma in Control Engineering

Taichung Industrial High School, Taichung City, Taiwan
September 2012 – July 2015

Certifications

- TOEFL iBT: Score of 86, Educational Testing Service (ETS), September 13, 2020

Skills

- **Programming**: C/C++, C#, Python
- **Frameworks**: WPF (MVVM), STM32, FreeRTOS, Ardupilot (Basic), ROS2 (Basic)
- **Protocols**: CAN Bus, LIN Bus, I2C, SPI, UART, MAVLink (Basic)
- **Tools**: Git, Visual Studio, STM32CubeIDE, Ardupilot SITL
- **Soft Skills**: Problem-Solving, Team Collaboration, English Proficiency (TOEFL iBT: 86)

Projects

- **Rocket Sensor Firmware** (2023): Developed C++ firmware for STM32-based rocket sensor system, optimizing real-time telemetry for aerospace applications.
- **Oscilloscope UI** (2022): Built WPF-based UI with MVVM for digital oscilloscope, improving signal visualization and user interaction.
- **Ardupilot Learning Project** (2025): Actively studying Ardupilot and MAVLink, implementing basic drone simulations using Ardupilot SITL and exploring ROS2 integration for autonomous systems.