Guan-Ting Li (Ted Li)

Senior Firmware Engineer

Over 6 years of firmware/software development expertise as a Senior Firmware Engineer, specializing in embedded systems, cross-functional projects, and RL-optimizations. Driving global technical innovations and training.

Work History

2019-01 - 2022-06

Senior Firmware Engineer

Artesyn Embedded Technologies, Taipei

- Pioneered RL-based optimization auto-tuning system using PPO, containerizing it as application, which slashed PSU embedded system development durations by **96%**.
- Devised Python-based automated testing tool, enhancing EE and DQ teams' efficiency by **60%**, dramatically reducing manual testing efforts.
- Directed **5+** RTOS training sessions in Embedded C, laying foundation for global sites transitioning to RTOS-based product ecosystem.
- Architected advanced security platform for PSU systems at global sites, bolstering client trust and elevating market credibility by **25%**.
- Designed universal calibration framework for top clients like Dell, HP and Lenovo, accelerating R&D product development by **30%** and streamlining testing processes.
- Crafted OOP-based framework with design patterns in Python, bolstering adaptability, supporting **10+** diverse instruments spanning various brands and models.
- Devised modular Excel-based behavior testing tool for DQ team, slashing test development time by over **50%**. This tool has become pivotal for testing processes.

Key Achievement: Spearheaded RL-optimized embedded systems, slashing development by **96%**. Through cross-functional collaboration, I boosted EE and DQ teams' efficiency by **60%**, while innovating with OOP and RTOS training.

2015-11 - 2018-09

Firmware Engineer

Signatude Co., Ltd, New Taipei City

- Engineered multifunction measurement system using RTOS; adeptly managing 3-stage analog

Contact

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Technical Profile

- C
- Python
- SQL
- RTOS
- Embedded System
- Git
- Bash
- Docker
- Linux
- Reinforcement Learning
- stable-baselines
- TensorFlow
- PyTorch
- LLM (Llama2, GGML)
- Prompt Engineering

Software

VSCode

PyCharm

Ubuntu

MacOS

JIRA

multiplexers, 24-bit Sigma-Delta ADC, MCU, and FPGAs.
- Conceived Python-driven auto-calibration, integrating PCB with multi-stage relays. Streamlined testing by **40%**, ensuring precision across diverse measurements.
- Designed IoT integration for Big Data, merging firmware and software through Python and MySQL. Achieved seamless sync with SQL Server.

Key Achievement : Pioneered an RTOS-driven multifunction measurement platform; enhanced precision through auto-calibration, achieving a **40%** surge in testing efficiency.

Education

2012-09 - 2015-06

Master of Science: Robotics Engineering

Tamkang University - New Taipei City, Taiwan

- Thesis: Picture-Based Drafting System for Robot Manipulators

Focus: Robotics, Manipulator Motion Control, Path Planning, Image Processing

2014-04 - 2015-03

Graduate Exchange Program: Robotics Engineering

The University of Electro-Communications - Tokyo, Japan

- Project: Convolutional Neural Network based on Embedded System

Focus: Machine Learning, Classification, Image Processing, Embedded System

2008-08 - 2012-06

Bachelor of Science: Automatic Control Engineering

Feng Chia University - Taichung, Taiwan

- Project: The Heating Constant Temperature Control System Design for New Strapping Machine

Focus: Control System, System Identification, Embedded System, Circuit Design

Competencies

Problem-Solving
●●●●● Excellent

Cross-Domain Collaboration
●●●●● Excellent

Object-Oriented Development
●●●●○ Very Good

Efficiency Analysis and Improvement
●●●●○ Very Good

Embedded Device Design and Hardware Knowledge
●●●●● Excellent

Algorithm Implementation
●●●●○ Very Good

Staff Education and Training
●●●●○ Very Good

Design Pattern
●●●●○ Very Good

Performance Optimization
●●●●● Excellent