

# Guan-Ting Li (Ted Li)

Senior Firmware Engineer

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

## Work History

2019-01 -  
2022-06

### Senior Firmware Engineer

Artesyn Embedded Technologies, Taipei

- Crafted OOP-based framework with design patterns in Python, bolstering adaptability, supporting **10+** diverse instruments spanning various brands and models.
- Pioneered RL-based PSU auto-tuning system using PPO, achieving **87%** match rate to HPE's benchmark and slashing development durations by **96%**.
- Architected advanced security platform for PSU systems at global sites, bolstering client trust and elevating market credibility by **25%**.
- Devised Python-based automated testing tool, enhancing EE and DQ teams' efficiency by **60%**, dramatically reducing manual testing efforts.
- 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.
- Directed **5+** RTOS training sessions in Embedded C, laying foundation for global sites transitioning to RTOS-based product ecosystem.
- Designed universal calibration framework for top clients like Dell, HP and Lenovo, accelerating R&D product development by **30%** and streamlining testing processes.

**Key Achievement** : Championed RL-driven optimizations with PPO, architected advanced security platforms, devised adaptable OOP frameworks, and enhanced inter-team efficiencies by up to **60%**.

## Contact

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## Technical Profile

- C
- RTOS
- Embedded System
- Python
- Git
- Bash
- Docker
- Linux
- Artificial Intelligence
- Reinforcement Learning

## Software

PyCharm  
VSCode  
Ubuntu  
MacOS  
JIRA

## Competencies

Problem-Solving

●●●●●  
Excellent

2015-11 -  
2018-09

Firmware Engineer

Signatude Co., Ltd, New Taipei City

- Engineered intricate multifunction measurement system using RTOS; adeptly managing 3-stage analog 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 using behavior testing methodologies.
- Designed IoT integration for Big Data, merging firmware and software through Python and MySQL. Achieved seamless sync with SQL Server, showcasing integrated development expertise.

**Key Achievement** : Engineered RTOS-driven systems, optimizing measurements and streamlining testing by **40%** with integrated firmware expertise.

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

Cross-Domain  
Collaboration



Object-Oriented  
Development



Efficiency Analysis and  
Improvement



Embedded Device Design  
and Hardware Knowledge



Algorithm Implementation



Staff Education and  
Training



Design Pattern



Performance Optimization

