

# Yuriy Zhang (張呈顥)

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## Experience

### Firmware Engineer

Jul 2024 – Present

DELL Technologies –Infrastructure Solutions Group | Power Engineering

- Developed and maintained **server Power Supply Unit (PSU) firmware**, specializing in **M-CRPS (Modular Common Redundant Power Supply)** architecture design and implementation.
- Partnered with external suppliers to co-develop new **M-CRPS firmware features**, achieving an **80% reduction in firmware update time**.
- Implemented and debugged low-level communication using **PMBus, I<sup>2</sup>C, and UART** protocols.
- Collaborated with global engineering teams across **the US, India, and Taiwan**.
- Worked closely with cross-functional teams including **iDRAC, BIOS, PSE, Platform Engineering, and Project Management (PjM)**.

### 17G Dell Secure UEFI BIOS Application Project

- Designed and developed a **UEFI BIOS diagnostic tool** to extract and visualize **BIOS payload data** directly from the motherboard.
- Improved debugging efficiency by enabling payload analysis **without entering BIOS debug mode**.

### Portfolio System Engineering –SPDM Information Tool

- Developed a **parser and filtering tool** for **SPDM (Security Protocol and Data Model)** communication logs.
- Reduced manual log analysis time by **50%** through automated parsing and structured filtering.

### Software Engineer Intern

Sep 2023 – Apr 2024

ADLINK Technology Inc. –x86 Linux BSP Team

- Contributed to the **Dell EMC Edge Gateway 3200** project on **x86 Linux**.
- Developed **shell scripts** for system automation and deployment tasks.

## Skills

### Programming Languages

- C, C++, Java, Python, C#

### Technical Areas

- Firmware Development, Power Firmware, Embedded C, UEFI BIOS, Software Security

### Platforms

- Linux, Windows, x86 Architecture

## Education

### Bachelor of Computer Science

2020 – 2024

University of Taipei

## Additional Experience

### Conferences

- Hacks In Taiwan Conference (HITCON)
- Students' Information Technology Conference (SITCON)

### Security Study Projects

Linux Information Security Scanning And Vulnerability Assessment

UT Dept. of CS

- Firewall configuration and block/allow list management
- Vulnerability assessment and system hardening
- Automation scripting for security tasks
- CVE research and binary exploitation analysis