

Hsuan Ya (Michael) Tsai

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WORK EXPERIENCE

MICROSOFT

Senior Software Engineer

*Sep. 2021-Present
Redmond, US*

- Azure Core Compute - Host Networking Accelerated Networking
 - Building, testing, and deploying networking acceleration (SR-IOV + FPGA offload) on Azure public cloud:
 - Enabled Accelerated Networking for new Hardware/VM/OS SKUs
 - Expanded Accelerated Networking to High Performance Computing SKUs
 - Monitored, collected telemetry and analyzed unknown failure modes
 - Deployed required networking modules/bug fixes to enable Accelerated Networking
 - Designed/Developed Mellanox NIC Qualifying Framework *[python/powershell]*
 - Qualified Azurified build of each new Mellanox CX3Pro/CX4Lx/CX5 Ethernet driver release
 - Developed multiple qualification tests and improved lab automation to make qualification more comprehensive and efficient
 - Developed agent for servicing NIC driver *[C++]*
 - Deployed qualified Mellanox driver releases to millions of Azure production servers
 - Monitored, collected telemetry, mitigated issues found during rollout and deployed bug fixes
 - Onboarded and orchestrated auto-mitigation for Accelerated Networking enablement
 - Mentored junior team members

MICROSOFT

Software Engineer II

*Apr. 2019-Aug. 2021
Redmond, US*

- Azure Networking - Host Networking
 - Building, testing, and deploying networking acceleration on Azure public cloud.

MICROSOFT

Software Engineer II

*Nov. 2017-Apr. 2019
Shanghai, China*

- Designed and Developed Protocol Test Suites *[C#]*
 - Validated and aligned interoperability behaviors for new Windows releases or updates.
 - Enhanced test tools and scripts *[C#/Powershell]*
- Utilized Continuous Integration *[Jenkins]*
 - Strengthened Jenkins by introducing Jenkins Pipeline/jenkinsfile
- Performed Document Review and Overview Document Testing for Open Specification in MSDN

DELL INC.

Sr. Software Engineer

*Aug. 2017-Oct. 2017
Taipei, Taiwan*

- Designed and developed software solutions in Alienware gaming PCs *[C/C++/C#]*

TREND MICRO INC.

Project Lead/Sr. Software Engineer

*Jan. 2015-Aug. 2017
Taipei, Taiwan*

- Led a team of 5 people to manage and operate a network engine team to discover Advanced Threats and Target Attacks *[C]/[Linux]*
 - Drove Deep Packet Inspection for OSI layer 2/3/4 protocols (TCP/UDP/ICMP/IP/HTTP/etc.)
 - Designed networking-related features:
 - Customized IP, FQDN and URL rules for blacklist/whitelist
 - Packet filter to filter out packets with specified IP-port pair requested by NEC Technologies
 - Packet Capture to assist and support network forensic.
 - Developed DSL operators for real-time threat detection operation team *[lex/yacc]*
 - Designed and improved test tools and build/UT scripts *[C/Python/Perl/gtest/C++]*

TREND MICRO INC.

Software Engineer

*Apr. 2012-Jan. 2015
Taipei, Taiwan*

EDUCATIONAL BACKGROUND

UNIVERSITY OF SOUTHERN CALIFORNIA

Sep 2010-Dec 2011

Master of Science in Computer Science (General)

- Attended in Non-thesis program.

Los Angeles, CA

NATIONAL CHIAO TUNG UNIVERSITY

Master of Science in Computer Science

- Thesis topic: The Design of a P2P Live and Time-Shift Streaming System

Sep 2007-Jul 2009

Hsinchu, Taiwan

NATIONAL CHIAO TUNG UNIVERSITY

Bachelor of Science in Computer Science

- GPA 3.70 (26/207)

Sep 2002-Jun 2007

Hsinchu, Taiwan