

Hsuan Ya (Michael) Tsai

18647 NE 55th Way, Redmond, WA, 98052
+1(206)-288-9769

aya80904@gmail.com | hsuanyat@usc.edu

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:
 - Designed/Developed networking acceleration driver to offload traffic from software to hardware
 - Expanded Accelerated Networking to v5 VM sizes with up to 100 gbps and new BOOST VM sizes with up to 200 gbps networking bandwidth
 - Enabled Azure VNET encryption feature on v5+ VM sizes and BOOST VM sizes
 - Enabled Accelerated Networking for new Hardware/VM/OS SKUs
 - Expanded Accelerated Networking to High Performance Computing SKUs
 - Successfully onboarded Accelerated Networking to OpenAI A100/H100 SKUs
 - Monitored, collected telemetry, analyzed unknown failure modes and deployed required networking modules/bug fixes to enable Accelerated Networking
 - Developed agent for servicing host networking drivers [C++]
 - Deployed networking acceleration driver / qualified Mellanox driver releases to millions of Azure production servers
 - Monitored, collected telemetry, mitigated issues found during rollout and deployed bug fixes
 - Designed/Developed Mellanox NIC Qualifying Framework [python/powershell]
 - Qualified Azurified build of each new Mellanox Ethernet driver release
 - Developed multiple qualification tests and improved lab automation to make qualification more comprehensive and efficient
 - 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.
- Utilized Continuous Integration [Jenkins]
- 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.)
 - 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

Master of Science in Computer Science (General)

*Sep 2010-Dec 2011
Los Angeles, CA*

- Attended in Non-thesis program.

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