

Charles Min-Cheng Chan

Education

Ph.D. in Computer Science and Engineering (GPA: 4.0/4.0) 09/2011 – 10/2016

National Chiao Tung University Hsinchu, Taiwan

Advisor: Prof. Chien-Chao Tseng and Prof. Li-Hsing Yen

B.S. in Computer Science (GPA: 3.9/4.0) 09/2006 – 06/2010

National Chiao Tung University Hsinchu, Taiwan

+ Information & Communication Security Program

Work Experience

Open Networking Laboratory (ON.Lab) Menlo Park, CA

Member of Technical Staff 10/2016 - Present

Doctoral Research Intern 09/2015 - 09/2016

Develop and deploy of Trellis - the network infrastructure for CORD

Develop ONOS and maintain several ONOS modules.

D-Link NCTU Joint Research Center Hsinchu, Taiwan

SDN Team Lead (part-time) 07/2013 - 09/2015

Develop a simulator for Software-Defined Wireless Local Area Network (OpenNet).

Develop a diagnosis, analytic and management framework for SDN (OmniUI).

Deploy SDN in campus.

FineArt Technology Co., Ltd. Hsinchu, Taiwan

Android Technical Consultant (part-time) 12/2011 - 08/2012

Developed a secured Android mobile phone.

Computer Center, Dept. CS, National Chiao Tung University Hsinchu, Taiwan

System and Network Administrator (part-time) 08/2007 - 09/2010

Designed, deployed and managed campus network.

Deployed and managed workstation clusters.

FoxLink Co., Ltd. Taipei, Taiwan

Contract Programmer (part-time) 09/2009 - 06/2010

Developed an integrated blog application on Android.

Proficiencies

- Software-Defined Networking
- Heterogeneous wireless networks
- System and network administration
- Android application and framework development
- Java, Python, JavaScript, Ruby, C/C++, PHP
- Mandarin Chinese (native), English (fluent), Japanese (elementary)

Selected Projects

Central Office Re-architected as a Datacenter (CORD)

<http://opencord.org>

Developer

CORD combines NFV, SDN, and the elasticity of commodity clouds to bring datacenter economics and cloud agility to the Telco Central Office.

Open Network Operating System (ONOS)

<http://onosproject.org>

Developer, Module Owner, CVE Reporter

A carrier-grade SDN network operating system designed for high availability, performance, and scalability. See more about my contribution to ONOS at: <http://onosproject.org/community/developer-spotlight/>

OmniUI

<https://github.com/dlinknctu/OmniUI>

Team Lead, Main Contributor

A diagnosis, analytic and management framework for SDN that collects basic information from various controllers and provides aggregated information and statistics for upper layer SDN application.

OpenNet

<https://github.com/dlinknctu/OpenNet>

Team Lead, Main Contributor

A simulator for Software-defined Wireless Local Area Network that features in wireless behavior simulation, various controller compatibility and high extensibility.

A Cross-layer Approach to Service Continuity for Versatile Heterogeneous Networks

Team Lead, Contributor

A network interface and session management framework that provides service continuity when mobile devices roaming across heterogeneous networks.

Intelligent Techniques for Seamless Connectivity in Wireless Networks

<http://www.e-sponder.eu/>

Technical Consultant

Cooperated with Institute for Information Industry (III) on the E-sponder project. We take responsibility for the design and implementation of service continuity and communication mechanism at the disaster scene.

Publications

1. Ce Chen, Yu-Ting Lin, Li-Hsing Yen, Min-Cheng Chan and Chien-Chao Tseng, "Mobility Management for Low-Latency Handover in SDN-Based Enterprise Networks," in *Proceeding of IEEE Wireless Communications and Networking Conference*, 2016.
2. Min-Cheng Chan, Chien-Chao Tseng and Li-Hsing Yen, "Jitter-Aware Packet Scheduler for Concurrent Multipath Transmission in Heterogeneous Wireless Networks," in *Proceeding of IEEE Wireless Communications and Networking Conference*, 2016.
3. Min-Cheng Chan and Chien-Chao Tseng, "Connection Management for Heterogeneous Wireless Networks," in *Proceeding of International Conference on Advances in Mobile Computing & Multimedia*, 2014.
4. Min-Cheng Chan, Chien Chen, Jun-Xian Huang, Ted Kuo, Li-Hsing Yen, Chien-Chao Tseng, "OpenNet: A Simulator for Software-Defined Wireless Local Area Network," in *Proceeding of IEEE Wireless Communications and Networking Conference*, 2014.
5. Min-Cheng Chan, Chien-Chao Tseng, and Li-Hsing Yen, "A Cross-Layer Architecture for Service Continuity and Multipath Transmission in Heterogeneous Wireless Networks," in *Proceeding of IEEE Wireless Communications and Networking Conference*, 2013.

Patent

1. Chien-Chao Tseng and Min-Cheng Chan, "System Architecture and Transmission Method for Service Continuity in Heterogeneous Wireless Networks for User Device", Jul. 2015. (TW 102120784)
2. Chien-Chao Tseng and Min-Cheng Chan, "System Architecture and Method for Service Continuity in Heterogeneous Wireless Networks", *Patent applied for*, Apr. 2014. (US 14242208)