Chun-Yu (Daniel) Chen

CSE Ph.D. Student (Candidate)
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Country of Origin: Taiwan (R.O.C)

RESEARCH AREAS

Privacy and Security, Anomaly Detection, Mobile Sensing, Automobile Systems,
Wireless Communications, Networking, Internet of Things, Localization/Positioning, Multimedia/Signal Processing

RESEARCH PROJECTS

Detection and Correction of Maneuver Control Anomaly via V2X Communication   06/2019 – Present
| Real-Time Computing Lab (RTCL)
Advisor: Prof. Kang G. Shin, Collaborator: Intel Labs
Developed anomaly detection systems based on wireless measurements and BSMs

Context-Aware Detection of Vehicle Anomalies   05/2019 – 10/2019
| Real-Time Computing Lab (RTCL) & Ford Motor Company
Advisor: Prof. Kang G. Shin, Collaborator: John Moore, Soodeh Dadras
Developed *CADD* to identify vehicle acceleration anomaly based on context estimations

CarDog: What's Wrong with My Car?   06/2018 – 05/2019
| Real-Time Computing Lab (RTCL) & Ford Motor Company - Greenfield Labs
Advisor: Prof. Kang G. Shin, Collaborator: Yu Seung Kim
Developed *CarDog* to identify sensor data anomaly of vehicle and external device

Keep Others from Peeking at Your Mobile Device Screen!   09/2017 – 09/2018
| Real-Time Computing Lab (RTCL)
Advisor: Prof. Kang G. Shin
Developed *HideScreen* to protect general on-screen information (e.g., texts and images) shown on our mobile devices

Is the Phone in a Moving Car's Driver Seat?   10/2016 – 08/2017
| Real-Time Computing Lab (RTCL)
Advisor: Prof. Kang G. Shin
Developed an in-car phone localization scheme, *DAPL* (Detection and Alarming of Phone Location), to locate smartphones in moving cars for prevention of distracted driving

Large Scale Reliable Mesh Network (Chief Engineer) | Smart X Lab   05/2015 – 06/2016
Developed and commercially deployed large scale IoT systems based on IEEE 802.15.4

Green Context-Aware Platform for Smart Living (Team Leader)   02/2012 – 01/2014
| Next Generation Wireless Networking Lab
Advisor: Prof. Chun-Ting Chou
Developed a context-aware platform that integrates heterogeneous sensors and actuators in smart living environments

Cooperative Localization (Team Member) | Next Generation Wireless Networking Lab   09/2010 – 01/2012
Advisor: Prof. Chun-Ting Chou
Developed a cooperative localization scheme that enhances localization accuracy

Privacy Protection of Location-based Services (Team Member)   09/2010 – 01/2011
| Next Generation Wireless Networking Lab
Advisor: Prof. Chun-Ting Chou
Identified identity leak issues when using anonymous location-based services

EDUCATION

CSE Ph.D. Student (Candidate)   09/2016 – present
- Computer Science and Engineering, University of Michigan, Ann Arbor, U.S.
- GPA: 4.06/4.3 (Converted GPA: 4.0/4.0)

Master of Science Degree   02/2012 - 01/2014
- Institute of Communication Engineering, National Taiwan University (NTU), Taiwan
- GPA: 4.26/4.30 (Converted GPA: 3.98/4.0)
- Rank: 11th among 104 students

Bachelor of Science Degree (Graduated in only 3.5 years)   09/2008 - 01/2012
- Department of Electrical Engineering, National Taiwan University (NTU), Taiwan
- GPA: 88.18/100 (Converted GPA: 3.94/4.0)
- Rank: 47th among 226 students

WORKING AND TEACHING EXPERIENCES

Vehicle Cyber Security Intern
| Ford Motor Company (http://www.ford.com)   05/2019 – 08/2019

Vehicle Cyber Security Intern
| Ford Motor Company – Greenfield Labs (http://www.ford.com)   06/2018 – 08/2018

Chief Engineer (Full Time)
| Smart X Lab (http://smartxlab.com)   06/2015 – 06/2016

Substitute Military Services (Educational Services)
| Office of General Affairs at Tainan Municipal WunSian Junior High School   04/2014 – 04/2015

Graduate Assistant
| Next Generation Wireless Networking Lab (http://nxg.ee.ntu.edu.tw)   02/2012 - 01/2014

Teaching Assistant (Course: Design of Wireless Communication Networks)
| Graduate Institute of Communication Engineering, National Taiwan University   09/2013 - 01/2014

PUBLICATIONS AND AWARDS

Chun-Yu Chen, Bo-Yao Lin, Junding Wang and Kang G. Shin
"Keep Others from Peeking at Your Mobile Device Screen!"
In The 25th Annual International Conference on Mobile Computing and Networking (MobiCom '19), Oct. 2019

Master Thesis
"A Green Context-Aware Platform for Smart Living," Jan. 2014

Chun-Yu Chen, Yu-Jen Ku, Chih-Wei Ho, Yan-Ze Lin, and Chun-Ting Chou
"A Green Context-Aware Platform for Smart Living,"
IEEE International Conference on Service-Oriented Computing and Applications (SOCA), Dec. 2013

Yu-Chung Chen, Chun-Ting Chou and **Chun-Yu Chen**
"Cooperative localization for wireless and mobile social networking service (SNS),"
IEEE International Wireless Communications and Mobile Computing Conference (IWCMC), July 2011

National Taiwan University Presidential Award (1st Semester of 2011-2012 School Year)
- Awarded to the top 5% of students in the Department of Electrical Engineering each semester

SKILLS AND LANGUAGES

Programming: Android Programming, C/C++, C#, Java, JavaScript, PHP, Verilog

Script: UNIX Shell Script, Matlab, AWK

Database: MySQL, MongoDB

Other: MQTT, HTML

Languages: Chinese (Mandarin), English, Taiwanese