

Objective

Seek an engineering position engaged with networking technology and web related application.

Skills

- **Programming:** Java, Python, Android, C, C++, MATLAB
- **Network:** Wi-Fi, TCP/IP, Wireshark, NS2, EXata,
- **System & Tools:** Bash, Shell Script, Linux Kernel, VirtualBox, Vagrant, Heroku, Git, GDB
- **Web:** HTML, CSS, Bootstrap, JavaScript, jQuery, Node.js, Express, MongoDB, MySQL, SQLite
- **Language:** Mandarin, English, Japanese (N1), Taiwanese

Experiences

Software Research Engineer, Toshiba Corporation - Semiconductor & Storage @ Japan

2013.11 – Present

- Workload analysis for next generation persistent memory
 - Survey and research on OS, kernel, DRAM, and databases to better utilize persistent memory in future.
- Multicast and multihop-based Wi-Fi content dissemination platform
 - Design and implement the prototype on single compute board (Linux) and mobile phone (Android).
 - Collaborate with academic institutes for further development meanwhile work with business development department for commercializing it.
 - Write patterns and publish papers.

Software R&D Engineer, ASUS - Android Mobile @ Taiwan

2012.11 – 2013.10

- Designed and implemented new features for webkit-based stock browser of Android. [Browser]
- Developed web-related plug-ins for different browsers such like Chrome and IE. [Browser]
- Responsible for wireless settings of Android, e.g. Wi-Fi, Bluetooth, Wi-Fi Direct and hotspot tethering for various platforms. [Wireless]

Special Research Student, Asami & Kawahara Lab, The University of Tokyo @ Japan

2010.10 – 2011.09

- Communication Protocols for High Speed Trains
 - Targeted to construct a wireless communication system for the bullet-train (Shinkansen) collaborating with Central Japan Railway Company (JR-Tokai). I was in charge of the behavior analysis of TCP/UDP traffics, and designed and implemented the emulator for the high-speed environment.

Master Student, Wireless Mobile Network Lab, National Taiwan University @ Taiwan

2008.10 – 2010.09

- Accelerometer-Assisted adaptive 802.11 mechanism for Public Transportation System
 - Designed a mechanism that utilizes information of train's acceleration to enhance conventional rate adaptation scheme. The system increases the transmission throughput and meanwhile save the energy. To evaluate the performance of our mechanism, we conducted the experiments on Taipei MRT system.

Publications

- **Yu-Jen Lai**, Youyang Ng, Takeshi Sakoda, Yosuke Bando, Arata Miyamoto, Masahiro Ishiyama, Ken-ichi Maeda, Yusuke Doi, "Real and Simulator Testbeds for Content Dissemination in High-density Large-scale WANET", IEEE Consumer Communications & Networking Conference (CCNC), January 2017 2017.01
- **Yu-Jen Lai**, Wei-Hao Kuo, Wan-Ting Chiu, Hung-Yu Wei, "Accelerometer-Assisted 802.11 Rate Adaptation on Mobile WiFi Access", EURASIP Journal on Wireless Communications and Networking, August 2012 2012.08
- Kazuto Shimizu, **Yu-Jen Lai**, Kazuhiro Yamada, Yoshihiro Kawahara, and Tohru Asami, "Design and Evaluation of an Emulator for High Speed Mobile Communication Environment Based on IEEE 802.11g", Technical Report of IEICE (Japanese), March 2011 2011.03

Educations

- M.S. in Electrical Engineering graduate institute, National Taiwan University (Wireless Mobile Network Lab) 2008.09 – 2011.09
- Special Research Student in The University of Tokyo (Asami Kawahara Lab) 2010.09 – 2011.08
- B.S. in Electrical Engineering, National Taiwan University 2004.09 – 2008.06