Yu-Chih Tung

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| Objective |  | Full-Time Software Engineer or Research Scientist |
| Selected PROJECTs |  | FORCEPHONE: SOFTWARE-based Touch Force Sensing with only build-in sensors Enable touch force sensing at smartphones without installing any new hardware  Published in ACM Mobisys 2016, also reported by  (This project is also going to be licensed by a major phone manufacturer) EchoTag: intrastructure-free location TAGGING by smartphoneS Build a geo-fencing app to remember locations by hearing inaudible sound reflections  Published in ACM MobiCom 2015 SLEEP-N-GAME APP: Lets smartphone play the game when you sleep Design a system playing mobile games automatically based on computer vision algorithms  Published in Google Play Store 2016 KINGFONG (Labor Console) App: Lets employees know their rights Develop a free app to estimate pensions, overwork fees, or other rights for China/Taiwan employee  Published in Google Play & Apple App Stores 2011 (10k+ download & 4.5+ rating) |
| INTEreSTS &Skills |  | Mobile Computing & Cross-layer Optimization / Wireless Networks & Security  **Familiar:** C/C++/Obj-C/Java/Python/Matlab **Experienced:** Linux/Android/iOS/PHP/SQL |
| WorkING Experience |  | software engineer INTERN, Facebook, 2017 (return full-time offer received) Integrate TLS 1.3 into subsystems [C/Obj-C/Linux]  Solve several cross-layer compatibility issues, such as TCP Fast Open and TCP Non-Blocking, reducing 2x more latency from the original porting   RESEARCH INTERN, HP Labs, 2015 Test wireless non-cryptic security [C/C++/Linux]  Implement a new wireless signal-based authentication on HP’s routers and discover the potential issues of such a non-cryptic security system   RESEARCH INTERN, CSAIL, MIT, 2012 Build MU-MIMO wireless prototypes [C/Python]  Design the “TurboRate” project and build a prototype with GnuRadio in USRP embedded testbeds, showing a 3x throughput improvement   RESEARCH assistant, ACADEMIA SINICA, 2011 Build my thesis project on P2P storage systems [C/Python/Matlab]  Propose a new system metric which considers both the file access time and availability, then implement a new file replica algorithm saving 30% joint access time on NS2 simulation    Help employee know their rights  4.6-star rated / 10k+ downloaded  https://goo.gl/Y8KVTd APP Developer, Kingfong, Taiwan, 2010 Solely design an iOS/Android app [Java/Obj-C/PHP] |
| Education |  | University of michigan PhD in Computer Science & Engineering, advised by Prof. Kang G. Shin, GPA 4.00 National Taiwan University M.S. in Department of Computer Science & Information Theory, GPA 3.90 National Chiao Tung University B.S. in Department of Computer Science, GPA 3.95 **(ranked 3/200+, and graduated in advance)** |
| HONORS & AWARDS |  | UMICH CSE Honor competitions (winner of software group) University of Michigan, 2016 RACKHAM INTERNATIONAL FELLOWSHIP University of Michigan, 2014 Student travel Grant ACM MobiCom, Mobisys, MobiHoc, and University of Michigan Best paper nomination ACM MobiCom, 2012 Presidential Award (Ranked top 2% over six semesters) National Chiao Tung University, 2010 |
| PRofessional Service |  | Author of offical porting of the popular LibSVM on Android https://github.com/yctung/AndroidLibSvm Co-Founder of an online service (auto-Playing mobile games VIA image processing) http://ayappteam.com/sleepngame/ CLUB LEADER StarVoice (rock music club composed by 100+ students), National Chiao Tung Univeristy Technical Program Committee (TPC) ACM S3 at MobiCom 2016, 2017 External Reviewer IEEE/ACM Transactions on Mobile Computing/Networking/Information Forensics Security |
| Academic publications |  | **User-Interactive Charging of Mobile Devices**  Liang He, Yu-Chih Tung and Kang G. Shin, ACM Mobisys 2017 (Best poster award)  **Expansion of Human–Phone Interface By Sensing Structure-Borne Sound Propagation**  Yu-Chih Tung and K.G. Shin, ACM Mobisys 2016  **Analog Man-in-the-Middle Attack Against Link-Based Packet Source Identification**  Yu-Chih Tung, K.G. Shin, and K.H. Kim, ACM MobiHoc 2016  **EchoTag: Accurate Infrastructure-Free Indoor Location Sensing with Smartphones**  Yu-Chih Tung and K.G. Shin, ACM MobiCom 2015 Vulnerability and Protection of Channel State Information in Multiuser MIMO Networks Yu-Chih Tung, S. Han, D. Chen, and K.G. Shin, ACM CCS, 2014 Rate Adaptation for 802.11 Multiuser MIMO Networks W.L. Shen, Yu-Chih Tung, K.C. Lee, K.C.J. Lin, S. Gollakota, D. Katabi and M.S. Chen, ACM MobiCom, 2012 (Best paper nomination) Rate Adaptation and User Matching for Multiuser MIMO Networks Yu-Chih Tung, W.L. Shen, K.C.J. Lin, ACM S3 Workshops, 2012 Availability is Not Enough: Minimizing Joint Response Time in P2P Storage Systems Yu-Chih Tung, C.F. Chou, K.C.J. Lin, Mater Thesis, also published in a IEEE System Journal Bandwidth-Aware Replica Placement for Peer-to-Peer Storage Systems Yu-Chih Tung, K.C.J. Lin, C.F. Chou, IEEE GLOBECOM 2011 |