Ping-Min Lin

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Education

National Taiwan University(NTU)   Jan. 2017
B.S. in Electrical Engineering and Finance   *Taipei, Taiwan*
Overall GPA: 4.19/4.3 Major GPA: 4.19/4.3(EE) 4.18/4.3(Finance)
Overall Ranking: 9/249(4%)
Relevant Coursework:

- Computer Programming / Introduction to Computer / Operating Systems
- Computer Architecture / Algorithms / Data Structures and Programming
- Discrete Math / Probability and Statistics / Linear Algebra
- Introduction to Wireless and Mobile Networking / Intelligent Devices and Cloud Computing
- Computer Security / Special Topics in Computer Security

Honors

Pan Wen Yuan Scholarship   Sep. 2013
Pan Wen Yuan Foundation
Awarded to 3 distinguished undergraduate students of College of EECS, NTU each year.

Dean's List   Fall 2012, Spring 2013, Spring 2015
Department of Electrical Engineering, NTU
Awarded to top 5% students of department each semester.

Research and Patents

Fast Crypto Lab, NTUEE   Fall 2015 - Spring 2016
Undergraduate Research Student

- Reproduced attack in paper[1] on MIFARE classic cards based on design flaws in Crypto-1 with C++.
- Used multiple methods to reduce complexity from 2^{48} to $2^{33.7}$.

Security Team, China Development Lab, IBM Taiwan   Jul. 2015 - Jan. 2016
Patent Inventor

- US Patent: Seamless Abort and Reinstatement of TLS Session (IBM Docket No. TW920160011US1)
- Co-invented method allowing passive inspectors to transparently handle existing TLS connections with resumption.

Wireless and Mobile Network Lab, NTUEE   Spring 2015
Undergraduate Research Student

- Analyzed wireless networking models with game theory and other optimization methods(e.g. Dual Analysis, Lyapunov Stability).
- Formulated user association model of LTE/LTE-U spectrum with multiple UEs

Work Experience

Aidmics Biotechnology   Aug. 2016 - Present
Web Developer   *Taipei, Taiwan*

- Maintain product website and optimize web page delivery performance with node.js and postgreSQL.
- Integrate user-tracking with Facebook Business and Google Analytics and payment with Paypal API.

Security Team, China Development Lab, IBM Taiwan   Jul. 2015 - Jan. 2016
Software Intern   *Taipei, Taiwan*

- Developed proof of concept for intrusion protection system cloud service with node.js and iptables on self-hosted Cloud Foundry instance and multi-tenant Openstack environment.
- Demonstrated possibility and performance of packet inspection with Netfilter/NFQUEUE inside Docker containers by implementing daemons written in C.
- Inventor of US patent regarding intrusion protection for connections with TLS resumption.

Bonio Inc.   Jul. 2014 - Sep. 2014
Fullstack Web Developer Intern   *Taipei, Taiwan*

- Developed game prototype for project management training using Ruby on Rails.
- Deployed Scrum in project team as the agile software development framework.

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[1]Carlo Meijer and Roel Verdult. "Ciphertext-only Cryptanalysis on Hardened Mifare Classic Cards". 22nd ACM SIGSAC Conference on Computer and Communications Security. CCS '15

Selected Coursework

Special Topics in Computer Security *Spring 2016*
- Developed advanced skills in exploiting executable binaries.
- Demonstrate possible exploit regarding CVE-2016-4024 as final project.
  (Final Presentation Slides: https://goo.gl/xOU8VH)

Electrical Engineering Lab (Embedded Systems) *Fall 2015*
- Interact with embedded prototyping systems(e.g. Tessel) and build middleware for custom I/O devices.
- Built Naviskate, a smart skateboard prototype integrating navigation into skateboards.
  (Demo Video(Chinese): https://goo.gl/WNjM4d)

Computer Security *Fall 2015*
- A cross-university course that allows us to obtain knowledge of security issues in multiple fields such as binaries, web, cryptography etc.
- Our team finished 10th place out of 68 teams in the CTF opened to public held as final term.
  (Final Scoreboard: http://bit.ly/2cQDXXp, Team q86)

Selected Projects

Coursepeek *Jun. 2015*
- Implemented web page scraper to parse classroom reservations and obtain course data for the following semester with Javascript.
- Built web application that served ~100 students simultaneously, allowing them to search courses before officially released with node.js, React.js and mongodb.

NTU Grade Distribution Viewer *Jan. 2014*
- Fetched course grading distribution from obscure endpoint of university website with JQuery.
- Packaged service into Chrome browser extension and provided it to university students.

NTUEE Week Campaign Website *Oct. 2013*
- Built web application for student association-held activity "NTUEE Week" with several games and currency system with PHP and CodeIgniter framework.
- First ever approach in the school for similar events, hosted ~1000 users in the 2-week online campaign.

Extra-Curricular Activities

HackNTU *Oct. 2014 - Jul. 2015*
Director of Community & Club Leader
- Organized a total of 5 workshops and meetups with a target audience of non-tech background students, introducing them to topics such as web design, hardware hacking and data science.
- Managed and coordinated 4 semester-wide courses held by the club collaborating with instructors from IT industry covering subjects such as IoT and mobile apps.

NTUEE Student Association *Sep. 2014 - Aug. 2015*
Chief Information Officer
- Developed and maintained textbook purchasing system that was used by students from 4 departments and total transaction amount around 4 million TWD (~160 thousand USD). The system was developed with Ruby on Rails.
- Establish and managed Linux server used by student association.

NTU Securities Research Society *Nov. 2013 - Feb. 2015*
Director of Marketing
- Improved exposure and attendance of events by managing social media with advertising campaigns.
- Organized and promoted camps for 50 participants from general public to gain knowledge on securities and financial markets.