

# Ping-Min Lin

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## Education

### Carnegie Mellon University, School of Computer Science

Dec. 2018

M.S. in Computer Science GPA: N/A

Pittsburgh, PA

**Coursework** 15-513 Introduction to Computer System, 15-641 Computer Networks,  
15-651 Algorithm Design and Analysis, 15-619 Cloud Computing

### National Taiwan University

Jan. 2017

B.S. in Electrical Engineering and B.B.A in Finance GPA: 3.98/4.0

Taipei, Taiwan

**Honors** Pan Wen Yuan Scholarship, Dean's List (F '12, S '13, S '15)

**Coursework** Data Structures and Programming, Operating Systems, Intelligent Devices and Cloud Computing  
Machine Learning, Computer Security, Special Topics in Computer Security

## Professional Experience

### Aidmics Biotechnology

Aug. 2016 - Jan. 2017

Software Development Engineer

Taipei, Taiwan

- Integrated user-tracking with Facebook Business and Google Analytics to collect insights for advertisement.
- Incorporated Slack Bot API and email with Nodemailer into payment process, improving workflow and reducing delivery time by pushing realtime order notifications to sales team.
- Refactored Node.js product site back-end into RESTful API, implemented new payment and discount system compatible to Paypal SOAP API and extendable interfaces for future payment methods.

### Security Team, China Development Lab, IBM Taiwan

Jul. 2015 - Jan. 2016

Software Development Intern

Taipei, Taiwan

- Developed PoC for intrusion protection as a cloud service with Node.js and iptables on self-hosted Cloud Foundry instance and multi-tenant Openstack environment.
- Demonstrated a packet inspector utilizing Netfilter/NFQUEUE inside Docker containers by implementing daemons written in C, handling throughputs over 10Gbps.
- Co-invented US Patent: *Seamless Abort and Reinstatement of TLS Session* (IBM Docket No. TW920160011US1), a method allowing passive inspectors to transparently handle existing TLS connections with resumption.

## Projects

### Proxy Lab *Course Project*

Aug. 2017

- Designed a multithread proxy server handling HTTP/1.0 GET requests with C from scratch independently.
- Implemented a concurrent LRU-approximate cache for the proxy to reduce response time.

### Special Topics in Computer Security *Course Project*

Apr. 2016 - Jun. 2016

- Developed advanced skills in exploiting executable binaries, e.g. format string attack, heap exploitation.
- Demonstrated possible exploit regarding CVE-2016-4024 as final project. (Final Presentation Slides: [goo.gl/xOU8VH](http://goo.gl/xOU8VH))

### Courspeek *Independent Project*

Jun. 2015

- Designed crawler with Horseman.js to parse classroom bookings, obtaining course data for the following semester.
- Built web application that served ~100 students simultaneously, allowing them to search courses before officially released with Node.js, React.js and MongoDB.

### NTU Online Bookstore *Independent Project*

Aug. 2014 - Apr. 2015

- Developed online bookstore for the department's students with Ruby on Rails and MySQL.
- Used by four departments in the university with over 1000 users in production, total transaction amount reached around 4 million TWD (~160,000 USD) during a one year span.

## Skills

**Programming Languages** C/C++, Python, Javascript, Bash, Ruby, LaTeX

**Tools/Frameworks** Linux, Node.js, Express, Git, Docker, Ruby on Rails, MongoDB, MySQL, NumPy