Brian Lin 999-99999 (cell)
1890 some address h.lin@columbia.edu
Still some adress 80304

Education

- **Columbia University** New York, NY
  Master of Science in Computer Science Expected Dec. 2016
  - Coursework: Software Engineering, Security Architecture, Analysis of Algorithms
- **National Taiwan University** Taipei, Taiwan
  Master of Science in Electrical Engineering June 2012
  - Thesis: "DeepSleep: IEEE 802.11 Enhancement for Energy-Harvesting Machine-to-Machine Communications"

  Bachelor of Science in Electrical Engineering June 2010

Work Experience

- **Lionic Corp.** Hsinchu, Taiwan
  Software Engineer Sep. 2012 - July 2015
  - Developed UPnP protocol parser in home gateway to identify LAN devices and provide GUI with device information (icon, operating system, host name, and type), enhancing user-friendliness for underlying service configurations.
  - Designed communication and caching mechanisms on cache servers for Lionic cloud URL category service. Taking advantage of temporal locality in web-browsing behavior, the new design improved cache update flow and outperformed memcached library.
  - Improved Lionic Intrusion Prevention System (IPS) kernel module performance by restructuring packet flow to avoid unnecessary resource acquisition. Increased system throughput from 75% to 95% pure.
  - Ported Lionic IPS kernel module to become a user space simulator, facilitating testing, debugging, and automatic verification.
  - Enhanced Snort-compatible Lionic gateway IPS by designing and implementing new detection options for more sophisticated pattern matching.

Projects

- **FuzzyInput** (Independent Project with C Programming Language) 2014
  - Implemented an iOS-like spelling corrector with auto-completion feature using prefix tree data structure. The algorithm not only corrects insertion and deletion errors, but also corrects input mistakes caused by keyboard vicinity.
- **Rubik's Cube Mobile Solver** (Cloud Computing Course Project with Android Java) 2011
  - Created an Android Rubik's Cube solving app. After the user takes pictures of the unsolved cube, the web application on Google App Engine computes the solution steps. The result is then sent back to the mobile phone, which shows openGL animation to demonstrate the solution steps.
- **MyVocabulary** (Independent Project with Objective-C) 2010
  - Built and distributed a vocabulary card iOS app on App Store (2010-2011). By incorporating online dictionaries, users can look up new words without quitting the app and can automatically save the vocabulary from the online dictionary to study decks, which is powered by SQLite.
- **Let Music Live** (Human-Computer Interaction Course Project with Objective-C) 2010
  - Developed an automatic piano sheet turning iPad app, which tracks a pianist's playing speed and turns the music sheet. According to our survey, pianists preferred that each finished line be replaced by a new line from next page.

Skills

Languages: C, C++, Java, Objective-C, Python, Javascript, HTML, CSS

Tools: GDB, AWK, Valgrind, Git, Octave, Matlab, ns-2, Wireshark