Ryan J. **Lough**

Software Engineer · Security Expert
BOSTON Y0000000000000000

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Available January to September 2017

Education

POSTECH(Pohang University of Science and Technology)   *Pohang, S.Korea*

B.S. in Computer Science and Engineering   *Mar. 2010 - PRESENT*

- Got a Chun Shin-Il Scholarship which is given to promising students in CSE Dept.

Experience

R.O.K Cyber Command, MND   *Seoul, S.Korea*

Software Engineer & Security Researcher (Compulsory Military Service)   *Aug. 2014 - Exp. Apr. 2016*

- Implemented a military cooperation system which is web based real time messenger in Scala on Lift.
- Improved functionality on military command and control system for incident response with Java Servlet.
- Lead engineer on agent-less backtracking system that can discover client device's fingerprint(including public and private IP) independently of the Proxy, VPN and NAT.

NEXON   *Seoul, S.Korea & LA, U.S.A*

Game Developer Intern at Global Internship Program   *Jan. 2013 - Feb. 2013*

- Developed in Cocos2d-x an action puzzle game(Dragon Buster) targeting U.S. market. Implemented API server which is communicating with game client and In-App Store, along with two other team members who wrote the game logic, designed game graphics.
- Won the 2nd prize in final evaluation.

Undergraduate Research, Computer Vision Lab(Prof. Bohyung Han)   *Pohang, S.Korea*

Researcher for <Detecting video's torrents using image similarity algorithms>   *Sep. 2012 - Feb. 2013*

- Researched means of retrieving a corresponding video based on image contents using image similarity algorithm.
- Implemented prototype that users can obtain torrent magnet links of corresponding video relevant to an image on web site.

Software Maestro (funded by Korea Ministry of Knowledge and Economy)   *Seoul, S.Korea*

Software Engineer Trainee   *Jul. 2012 - Jun. 2013*

- Performed research memory management strategies of OS and implemented in Python an interactive simulator for Linux kernel memory management.

ShitOne Corp. (Start-up company)   *Seoul, S.Korea*

Software Engineer   *Dec. 2011 - Feb. 2012*

- Developed a proxy drive smartphone application which connects proxy driver and customer. Implemented overall Android application logic and wrote API server for community service, along with lead engineer who designed bidding protocol on raw socket and implemented API server for bidding.

SAMSUNG Electronics   *S.Korea*

Freelance Penetration Tester   *Sep. 2013, Mar. 2011 - Oct. 2011*

- Conducted penetration testing on SAMSUNG KNOX, which is solution for enterprise mobile security.
- Conducted penetration testing on SAMSUNG Smart TV.

Projects

Racing Analytics   *In Progress*

Python, Django, C#, SQL   *July 2015 - PRESENT*

- Gathered hundreds of thousands of horse racing results to find statistically significant patterns.

Android-Server Messenger   *Finished*

Go, Java   *July 2015*

- Implemented a client-server messaging application and REST API.

Honors & Awards

INTERNATIONAL

2014	**Finalist**, DEFCON 22nd CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2013	**Finalist**, DEFCON 21st CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2011	**Finalist**, DEFCON 19th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2012	**6th Place**, SECUINSIDE Hacking Competition World Final	*Seoul, S.Korea*

DOMESTIC

| 2015 | **3rd Place**, WITHCON Hacking Competition Final | *Seoul, S.Korea* |
| 2013 | **Silver Prize**, KISA HDCON Hacking Competition Final | *Seoul, S.Korea* |