

Phillip D. H. Wall

MEDICAL PHYSICIST-IN-TRAINING · PH.D. CANDIDATE · RESEARCHER

ABR Status: Passed Part 1

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“Be the change that you want to see in the world.”

Education

Louisiana State University

PH.D. IN MEDICAL PHYSICS

Baton Rouge, LA

Aug. 2017 - present

- Pursuing doctoral studies and researching machine learning applications in radiation therapy treatment planning and quality assurance

Louisiana State University

M.S. IN MEDICAL PHYSICS

Baton Rouge, LA

Aug. 2014 - Jul. 2017

- Completed didactic and clinical coursework before completing M.S. thesis research investigating database plan quality impact on knowledge-based radiation therapy treatment planning of prostate cancer

Davidson College

B.S. IN PHYSICS AND MATHEMATICS

Davidson, NC

Aug. 2010 - May 2014

- Graduated *cum laude* majoring in physics and mathematics

Skills

Programming Python, Node.JS, C/C++, Scala, JAVA, OCaml, LaTeX
Web Django, Express, Koa, Redux, React, HTML5, LESS, SASS
Languages Korean, English, Japanese, Chinese

Experience

PLAT Corp.

CO-FOUNDER & SOFTWARE ENGINEER

Seoul, S.Korea

Jan. 2016 - PRESENT

- Implemented RESTful API server for car rental booking application(CARPLAT in Google Play).
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and several AWS stack(Including EC2, ECS, Route 53, S3, CloudFront, RDS, ElastiCache, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Developed an easy-to-use Payment module which connects to major PG(Payment Gateway) companies in Korea.

Undergraduate Research, Machine Learning Lab(Prof. Seungjin Choi)

RESEARCHER

Pohang, S.Korea

Mar. 2016 - Exp. Jun. 2017

- Researched classification algorithms(SVM, CNN) to improve accuracy of human exercise recognition with wearable device.
- Developed two TIZEN applications to collect sample data set and to recognize user exercise on SAMSUNG Gear S.

R.O.K Cyber Command, MND

SOFTWARE ENGINEER & SECURITY RESEARCHER (COMPULSORY MILITARY SERVICE)

Seoul, S.Korea

Aug. 2014 - Apr. 2016

- 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.
- Implemented a distributed web stress test tool with high anonymity.
- Implemented a military cooperation system which is web based real time messenger in Scala on Lift.

NEXON

GAME DEVELOPER INTERN AT GLOBAL INTERNSHIP PROGRAM

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

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 and designed game graphics.
- Won the 2nd prize in final evaluation.

Undergraduate Research, Computer Vision Lab(Prof. Bohyung Han)

RESEARCHER FOR <DETECTING VIDEO'S TORRENTS USING IMAGE SIMILARITY ALGORITHMS>

Pohang, S.Korea

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.

Extracurricular Activity

B10S (B1t On the Security, Underground hacker team)

S.Korea

CORE MEMBER

Nov. 2011 - PRESENT

- Gained expertise in penetration testing areas, especially targeted on web application and software.
- Participated on a lot of hacking competition and won a good award.
- Held several hacking competitions non-profit, just for fun.

WiseGuys (Hacking & Security research group)

S.Korea

MEMBER

Jun. 2012 - PRESENT

- Gained expertise in hardware hacking areas from penetration testing on several devices including wireless router, smartphone, CCTV and set-top box.
- Trained wannabe hacker about hacking technique from basic to advanced and ethics for white hackers by hosting annual Hacking Camp.

PoApper (Developers' Network of POSTECH)

Pohang, S.Korea

CORE MEMBER & PRESIDENT AT 2013

Jun. 2010 - Jun. 2017

- Reformed the society focusing on software engineering and building network on and off campus.
- Proposed various marketing and network activities to raise awareness.

PLUS (Laboratory for UNIX Security in POSTECH)

Pohang, S.Korea

MEMBER

Sep. 2010 - Oct. 2011

- Gained expertise in hacking & security areas, especially about internal of operating system based on UNIX and several exploit techniques.
- Participated on several hacking competition and won a good award.
- Conducted periodic security checks on overall IT system as a member of POSTECH CERT.
- Conducted penetration testing commissioned by national agency and corporation.

MSSA (Management Strategy Club of POSTECH)

Pohang, S.Korea

MEMBER

Sep. 2013 - Jun. 2017

- Gained knowledge about several business field like Management, Strategy, Financial and marketing from group study.
- Gained expertise in business strategy areas and insight for various industry from weekly industry analysis session.

Honors & Awards

INTERNATIONAL

- | | | |
|------|---|------------------|
| 2017 | Finalist , DEFCON 25th CTF Hacking Competition World Final | Las Vegas, U.S.A |
| 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
2013	2nd Award , HUST Hacking Festival	S.Korea
2010	3rd Award , HUST Hacking Festival	S.Korea
2012	3rd Award , Holyshield 3rd Hacking Festival	S.Korea
2011	2nd Award , Holyshield 3rd Hacking Festival	S.Korea
2011	5th Place , PADOCON Hacking Competition Final	Seoul, S.Korea

Presentation

6th CodeEngn (Reverse Engineering Conference)

Seoul, S.Korea

PRESENTER FOR <DEFCON 20TH : THE WAY TO GO TO LAS VEGAS>

Jul. 2012

- Introduced CTF(Capture the Flag) hacking competition and advanced techniques and strategy for CTF

6th Hacking Camp - S.Korea

S.Korea

PRESENTER FOR <METASPLOIT 101>

Sep. 2012

- Introduced basic procedure for penetration testing and how to use Metasploit

Writing

A Guide for Developers in Start-up

Facebook Page

FOUNDER & WRITER

Jan. 2015 - PRESENT

- Drafted daily news for developers in Korea about IT technologies, issues about start-up.

AhnLab

S.Korea

UNDERGRADUATE STUDENT REPORTER

Oct. 2012 - Jul. 2013

- Drafted reports about IT trends and Security issues on AhnLab Company magazine.

Program Committees

2016	Problem Writer , 2016 CODEGATE Hacking Competition World Final	S.Korea
2013	Organizer & Co-director , 1st POSTECH Hackathon	S.Korea
2012	Staff , 7th Hacking Camp	S.Korea
2012	Problem Writer , 1st Hoseo University Teenager Hacking Competition	S.Korea
2012	Staff & Problem Writer , JFF(Just for Fun) Hacking Competition	S.Korea