

Jaeseung Choi

Software Security Lab (SoftSec)
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RESEARCH INTERESTS

Software security, static analysis, software testing, binary analysis.

RESEARCH POSITION

Software Security Lab, KAIST

Mar 2017 -

Ph.D Student in Computer Science

Advisor : Prof. Sang Kil Cha

EDUCATION

Programming Research Laboratory, Seoul National University

Mar 2015 - Feb 2017

Master of Science in Computer Science & Engineering

Advisor : Prof. Kwangkeun Yi

Thesis : Improving the Efficiency of User Interaction Based Alarm Classification System by using Data Dependency and Control Flow Graph

Seoul National University

Mar 2011 - Feb 2015

Bachelor of Science in Computer Science & Engineering

Major GPA : 4.02 / 4.30

Overall GPA : 3.91 / 4.30

PUBLICATIONS

1. **Jaeseung Choi**, Joonun Jang, Choongwoo Han, and Sang Kil Cha. “Grey-box Concolic Testing on Binary Code.” In *Proceedings of the 41st ACM/IEEE International Conference on Software Engineering*, pages 736-747, 2019
2. Minkyu Jung, Soomin Kim, HyungSeok Han, **Jaeseung Choi**, and Sang Kil Cha. “B2R2: Building an Efficient Front-End for Binary Analysis.” In *Proceedings of the NDSS Workshop on Binary Analysis Research*, 2019
3. SeongIl Wi, **Jaeseung Choi**, and Sang Kil Cha. “Git-based CTF: A Simple and Effective Approach to Organizing In-Course Attack-and-Defense Security Competition.” In *Proceedings of the USENIX Workshop on Advances in Security Education*, 2018

TALKS

Grey-box Concolic Testing on Binary Code

May 2019

Paper presentation at 41st ACM/IEEE International Conference on Software Engineering (ICSE 2019)
Montreal, Canada

ACADEMIC ACTIVITIES

External Reviewer

ASIACCS 2018, ASIACCS 2019

HONORS AND AWARDS

Best Paper Award in NDSS BAR 2019

Feb 2019

NDSS Workshop on Binary Analysis Research (BAR)

MSIT Minister Prize in Data Challenge 2018

Dec 2018

Korea Internet and Security Agency (KISA)

B.S Summa Cum Laude Graduate

Feb 2015

Department of Computer Science & Engineering, Seoul National University

MSIT Minister Prize in Information Security Education Program, *BoB*

Feb 2014

Korea Information Technology Research Institute (KITRI)

8th Place in DEFCON 20 CTF Final

Aug 2013

National Scholarship for Science & Engineering

Mar 2011 - Feb 2015

Korea Student Aid Foundation (KOSAF)

RESEARCH & WORKING EXPERIENCE

Visiting Research at UC Berkeley

May 2015 - August 2015

Worked for DARPA Cyber Grand Challenge (CGC) project

Advisor : Prof. Dawn Song

Research Assistant at Programming Research Laboratory

Sep 2013 - Feb 2015

Advisor : Prof. Kwangkeun Yi

Research Assistant at Real-time Ubiquitous System Laboratory

Mar 2013 - July 2013

Advisor : Prof. Chang-Gun Lee

Internship at SAP Labs, Korea

Dec 2012 - Jan 2013

HANA DBMS development team

TEACHING EXPERIENCE

Information Security Laboratory

2017-2018 Spring Semester

<https://softsec.kaist.ac.kr/courses/2018s-is521/>

<https://softsec.kaist.ac.kr/courses/2017s-is521/>

Program Analysis TA

2016 Spring Semester

<http://ropas.snu.ac.kr/~kwang/4541.664A/16/>

Programming Language TA

2015 Fall Semester

<http://ropas.snu.ac.kr/~kwang/4190.310/15/>

EXTRACURRICULAR ACTIVITIES

Computer Security Research Club, *Guardian*

Mar 2011 - Feb 2014

Served as a club president in Jan. 2012 - Dec. 2012

<http://guardian.snucse.org/>

KISA Bug Bounty

Mar 2014, Aug 2015

Korea Internet and Security Agency (KISA)

Discovered & reported vulnerabilities in Hancorn Hwp & Daum PotPlayer (rewarded)

<https://www.krcert.or.kr/consult/software/vulnerability.do>

TECHNICAL SKILLS

Fluent in F# and OCaml
Static analysis based on abstract interpretation
Binary reverse engineering

REFERENCE

Sang Kil Cha

Assistant Professor

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