

Joonhyung Shin

Department of Mathematical Sciences

KAIST (Korea Advanced Institute of Science and Technology)

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Date of birth: July 26, 1998

Military service status: In service (skilled industrial personnel)

Education

- B.S., Korea Advanced Institute of Science and Technology (GPA 4.18/4.30) 2015 ~
 - Department of Mathematical Sciences
 - Double Major in School of Computing
- Summer Session, University of California, Berkeley (GPA 4.00/4.00) 2017 ~ 2017
- Sejong Science High School 2013 ~ 2015

Awards & Honors

- KAIST Presidential Fellowship (2016 ~)
- Samsung Collegiate Programming Cup
 - Fifth Place Award (2018)
 - Fifth Place Award (2017)
- Simon Marais Mathematics Competition
 - 7th Place (2019)
 - 9th Place (2018)
- Dean's List
 - Department of Mathematical Sciences (Spring 2018, Spring 2017)
 - College of Natural Science (2018)
 - Freshman (Fall 2015, Spring 2015)
- ACM International Collegiate Programming Contest Daejeon Regional
 - 13th Place (2017)
 - 14th Place (2016)
- KAIST Math Problem of the Week
 - First Prize (2016 Fall)
 - Third Prize (2015 Fall)
- National Undergraduate Mathematical Competition, Korean Mathematical Society

- Gold Award (2015)
- Presidential Scholarship of Science, Korea Student Aid Foundation (2015)
- Korean Mathematical Olympiad
 - Silver Prize (2014)
 - Excellence Prize (Final KMO, 2013)
- Samsung Software Membership (2017 ~)

Research Experience

- Participated in Graph Theory research in KAIST Dept. of Mathematical Sciences as an Individual Study (Summer 2018)
 - Advisor: Sang-il Oum, Eric Vigoda
 - Topic: Restoring a graph given a random sample of the proper colorings of the graph
- Participated in Real Computation research in KAIST School of Computing as a course (CS408) project (Spring 2018)
 - Advisor: Martin Ziegler
 - Topic: Tensor calculus in exact real computation
 - Presented our work at WAAC 2016 (19th Japan-Korea Joint Workshop on Algorithms and Computation)
- Participated in Interpretable Machine Learning research in ALINLAB in KAIST Dept. of EE as an Individual Study (Winter 2017)
 - Advisor: Jinwoo Shin
 - Topic: Object localization with an algorithm based on CAM (Class Activation Map)

Teaching Experience

- Teaching Assistant for Korea Mathematical Olympiad Summer School Program (2018)
- Undergraduate Teaching Assistant for CS330 (Spring 2018)
- Undergraduate Teaching Assistant for CS101 (Fall 2017)
- Teaching Assistant for Korea Mathematical Olympiad Winter School Program (2017)

Work Experience

- Data Scientist, Hyperconnect (2018 ~)
 - Serving (alternative) military service as skilled industrial personnel
 - Designed and implemented data anomaly detection system
 - Designed user churn prediction model based on randomized trees
 - Designed and implemented data experiment management framework
 - Designed and implemented several user recommendation systems
 - Designed and implemented user targeting system architecture

Activities

- Problemsetter of KAIST 8th ACM-ICPC Mock Competition (2018)
- Participated in the study group aiming to solve all the problems in *Algebraic Topology*, *A. Hatcher* (2018)
- Led the Information Theory study group (Spring 2018)
- KAIST Undergraduate Mathematics Colloquium head organizer (Fall 2017, Spring 2018)
- Participated in Riemann Surface study group (Fall 2017)
- Problemsetter of KAIST 7th ACM-ICPC Mock Competition (2017)

Programming Skills

- Codeforces
 - Handle: jo_on
 - Maximum rating: 2303 (International Master)
- Programming languages
 - Professional: Python, SQL
 - Fluent: C/C++, Java, \LaTeX
 - Moderate: HTML, Javascript, MATLAB
- Tools and frameworks: Git, PyTorch, Django, Node.JS, Docker