

Hyunbin Kim

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RESEARCH INTERESTS

- Programming Language, Compiler
- Algorithm - graph theory, geometry, string algorithm

PUBLICATION

- **Abelian duplications on strings and string searching algorithms**
Hyunbin Kim, Chiwook Ahn, Dajung Cho
Korea Computer Congress, 2024 (KCC '24) (Excellent Paper Award)
- **Algorithms for Searching Maximum-Length Abelian Duplications in Strings**
Hyunbin Kim, Dajung Cho
KIISE Transactions on Computing Practices, 2025 (KTCP '25)
- **Online Approaches for Abelian Duplication in Strings : Design and Applications**
Hyunbin Kim, Dajung Cho
Korea Conference on Software Engineering, 2025 (KCSE '25)

EDUCATION

- **Korea Advanced Institute of Science and Technology (KAIST)** Mar '26 - Current
Daejeon, Korea
M.S. in School of Computing
– Advised by: Kihong Heo, *Prosys lab*
- **Ajou University** Mar '19 - Feb '26
Suwon, Korea
B.S. in Department of Computer Engineering
– Graduated with *highest honor(1st)*
– *Distinguished Graduate Award*, recognized for distinguished external achievements

EXPERIENCE

- **NetSys Lab. (Prof. Younghoon Kim)** Mar '25 - Sep '25
Suwon, Korea
Undergraduate Internship
– Researching Linux networking subsystem and extended BPF (eBPF) for system-level performance and programmability
- **Theory of Natural Computation Lab. (Prof. Dajung Cho)** Dec '23 - Dec '24
Suwon, Korea
Undergraduate Internship
– Researched a string operation called *Abelian duplication* from a formal language theory perspective, focusing on decision problems and closure properties

ACTIVITIES AND PROJECTS

- **Union of Clubs for Programming Contest (UCPC)** Jan '25 - Sep '25
Vice president
 - Largest algorithmic problem solving club union(30+ Universities) in Korea
 - Designed set of problems(submitted 1 problem), handled communication with international sponsors, organized seminar
- **shake! - 2022, 2023, 2024, 2025** Sep-Jan {'22, '23, '24, '25}
Director, Problem setter
 - Annual ICPC-style college union programming contest for universities in Kyongin Region
 - * Participants : {Ajou, Hanyang-ERICA, Inha, Korea Aerospace, Kyunghee, Sungkyunkwan, Dankook} Univ.
 - Designed set of problems, submitted 8 problems total
- **Ajou Programming Contest (APC) - 2022, 2023 ,2024 ,2025** Mar - May {'22, '23, '24, '25}
Director, Problem setter
 - Annual ICPC-style programming contest held in Ajou Univ.
 - Designed set of problems, submitted 16 problems total
- **Analyze 'N Solve It (ANSI)** Jan '23 - Current
Member, Vice president
 - Algorithmic problem solving club in Ajou University
 - Ran algorithmic problem solving study group – {Intermediate, Advanced, Extreme} Algorithm study group
 - Directed several programming contests

FURTHER SKILLS AND QUALIFICATIONS

- **Software Skills :** C/C++, L^AT_EX
- **Language :** Korean(Native), English(Upper intermediate)

ACHIEVEMENTS AND HONORS

* ICPC : International Collegiate Programming Contest

- **Distinguished Graduate Award**, Ajou University Feb '26
- **Excellence Award**, '24 Fall, Ajou Softcon – Research section Dec '24
- **Honorable mention**, 2025 ICPC Seoul Regional Nov '25
- **Honor**, 2024 ICPC Jakarta Regional Dec '24
- **Honor**, 2024 ICPC Seoul Regional Nov '24
- **Excellent Paper Award**, Korea Computer Congress 2024 (KCC '24) Jul '24
- **34th place**, 2023 ICPC Seoul Regional Nov '23
- **59th place**, 2022 ICPC Seoul Regional Nov '22
- **Finalist**, 2023 Samsung Collegiate Programming Cup ('23 SCPC) Aug '23
- **Academic Scholarship (Daewoo Scholarship – College Top Rank)**, Ajou University Jul '25
- **Academic Scholarship (Yulgok Scholarship)**, Ajou University Dec '24
- **Academic Scholarship (Yulgok Scholarship)**, Ajou University Dec '23
- **Academic Scholarship (Yulgok Scholarship)**, Ajou University Dec '22
- **Academic Scholarship (Yulgok Scholarship)**, Ajou University Jul '20