

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*