

Dohun Kim

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Education

Weston High School

High School Diploma (in progress) — GPA 4.0 UW

Coursework & Exams: AP Physics C: Mechanics and E&M (A); AP Calculus BC (5); AP Computer Science A (5); AP Statistics (A); AP World History (A).

Weston, MA

2024 – Present

Hanyang University — Gifted & Talented Center for Informatics

Advanced Course in Informatics

Seoul, South Korea

2020 – 2021

- Graduated #1 of 95 students and youngest in the Advanced cohort; only student selected for a 1-on-1 AI course under Prof. Ki Hyuk Sung.

Research & Publications

MIT PRIMES STEP — Senior Group, Mathematics Research

2024 – 2025

Co-authored two papers through MIT's selective research program, presenting original results in combinatorics and discrete mathematical structures.

- *Mathematics of Gozinta Boxes* — arXiv:2508.18277
- *Chip-Firing in Infinite k -ary Trees* — arXiv:2501.06675

Leadership & Activities

FIRST Tech Challenge Robotics — 22489 Galactic Narwhal Chicken Effect - Diamond

2024 – 2026

- Co-Captain (2025–2026) and team member (2024–2025); helped lead team strategy, build, and software.
- Team earned **2nd place for the Motivate Award** at the World Championship (Jemison Division).
- Advanced to the Multinational Tech Invitational (reached playoffs, top 16) and the Michiana Premier Event.
- Designed the drivetrain and a clutch power-take-off lift system in open-source CAD (**Onshape**).

Volunteer FLL Mentor — Teams “Butterfly Effect” & “LegoImpossible”

2024 – 2026

Weston Robotics — Planning Council & Program-Wide Mentor

2026 – Present

Weston Town Criers (A Cappella), Concert Choir & Jazz Choir; Tennis

2024 – Present

- Featured soloist on “500 Miles” (2025–2026); selected for MMEA Senior Districts as bass (2024 & 2025).

Honors & Awards

- **AMC 10A:** 141/150 (2024) • **AIME II:** 9/15 (2025) • MAML Olympiad Level 1: 2nd in Massachusetts (24/25).
- **USACO:** advanced to Gold Division, 900/1000 (2026) • **Codeforces:** rating 1737.
- **IMLEM:** #1 individual ranking with perfect scores across all 5 meets (2022–2023); MITIT 2023: 2nd, Beginner Division (team).
- Korean Olympiad in Informatics: Silver Award (National 2021; Regional 2021 & 2022).

Selected Projects

- **Empower Initiative** (empowerinit.org) — Website Coordinator for a student-run tutoring nonprofit; built and maintain the organization's public site.
- **A11y Checker** ([demo](#)) — web accessibility checker; **2nd place**, 2021 Congressional App Challenge (Office of Rep. Katherine Clark).
- **Voya** (voya.dohunkim.xyz) — interactive choose-your-own-adventure study game.
- **FTCDesign** (ftcdesign.org) — Major Contributor to an open-source design resource for the FIRST Tech Challenge community.
- **Configlib** (configlib.framer.website) — Major Contributor to an open-source configuration library for FTC robotics.

Skills

Programming Languages: C/C++, JavaScript/TypeScript, Python, Java

Languages: English (Fluent), Korean (Fluent), Spanish (Intermediate)

Frameworks & Tools: React, Next.js, Onshape (CAD)