

ETHAN (BAILIN) WANG

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SUMMARY

Competition-focused physics student and club leader with experience designing hands-on experiments, training peers, and representing Canada internationally (IYPT, IOAA). Passionate about rigorous, reproducible experimental work and building learning communities.

STEM: Mechanics, E&M, Experimental Design, Data Analysis
Tools: L^AT_EX, Arduino, CAD, Python, Spreadsheets, COMSOL, PowerPoint

Teaching: Lab design, experimental analysis, competition preparation

RELEVANT SKILLS

EDUCATION

- St. Robert Catholic High School (IB Diploma Programme), Thornhill, ON** 2021–2025
- **Coursework (IB):** HL Physics, HL Mathematics, HL Chemistry; SL French, SL History, SL English.
 - **AP Exams:** 5s in Physics C: Mechanics (2024), Physics C: E&M (2024), Calculus BC (2024); 4s in AP Statistics (2025), AP U.S. History. (2025)

PROFESSIONAL / LEADERSHIP EXPERIENCE

- IYPT Team Canada — Researcher & Presenter** 2024–2025
- Researched two IYPT problems; designed/built experimental rigs; executed data collection & analysis; authored formal reports.
 - Presented and opposed in Sweden; contributed to Canada's Team Bronze (international).
 - Placed 1st in Canadian IYPT selection; Team Canada member representing Canada internationally.

- CaYPT — Team Leader, Researcher & Presenter** 2023–Present
- Rented lab and drafted basic agreements; recruited and led a five-person team from school.
 - Led team to Silver nationally, organized team selection, lab rental, and buying/shipping of materials.
 - Designed/built setups; ran data collection/analysis; prepared opposition & defense strategies.

- Physics Club Executive / President** 2023–Present
- Designed and taught lessons (e.g., sound waves) and competition-prep sessions; coordinated logistics.
 - Led club operations and curriculum; expanded hands-on experimental programming and contest prep.

- IOAA Team Member Training Materials (Team Canada) — Author** 2024–Present
- Authored and compiled training materials: formula sheets, worked solutions, and orbital mechanics notes for Team Canada.
 - Standardized problem sets and solutions for peer practice and national team use.

- DECA Competitor & Sanopen — Product/Operations** 2023–2025
- Framed market constraints, positioning, and metrics; delivered evidence-based pitches.
 - Built unglamorous but critical ops: workflow, sterilization/documentation standards, and reimbursement processes.
 - Created decks and analysis to move concepts from idea to implementable plans.

- Online Astronomy Competition — Committee Member & Problem Writer** 2024–Present
- Wrote problems for open and invitational rounds; developed grading rubrics and marked submissions.
 - Delivered an international contest serving 340 participants from 44 countries; collaborated with IOAA-affiliated peers to standardize difficulty and fairness.

- CREATE Program (University of Toronto)** 2024
- **Absolute Winner** of the program-wide Design Challenge.
 - Prototyped and presented engineering solutions; documented trade-offs, testing plans, and results.

AWARDS

- International Young Physicists' Tournament (IYPT), Sweden — Team Bronze; Presenter & Opponent
- Canadian IYPT Selection Round — 1st Place (qualified to represent Canada; Team Canada member)
- DECA Ontario — Provincial Finalist, Top Overall Presentation, Top Exam Score; ICDC Qualification
- International Olympiad on Astronomy & Astrophysics (IOAA), India — Selected to represent Canada
- Canadian Astronomy & Astrophysics Olympiad (CAAO) — National Silver / 6th overall
- AIME / AMC 12 — AIME 9/15; AMC 12 120/150, AMC Honour Roll
- **Absolute Winner** — Ontario Association of Physics Teachers (OAPT) Exam
- Euclid Contest (UWaterloo CEMC) — Honour Roll, Top 200 nationally (~99.6%ile)
- CREATE Program, University of Toronto — **Absolute Winner**, program-wide Design Challenge
- **Athletics:** MVP — Junior Tennis; 3x MVP — Varsity Ultimate Frisbee; Varsity Baseball — Team Member