

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.

RELEVANT SKILLS

STEM: Mechanics, E&M, Experimental Design, Data Analysis
Tools: L^AT_EX, Arduino, CAD, Python, Spreadsheets, COM-SOL, PowerPoint
Teaching: Lab design, experimental analysis, competition preparation

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; 3× MVP — Varsity Ultimate Frisbee; Varsity Baseball — Team Member