# Jed Lin

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## Education

**Crescent School** **Toronto, ON**
*Ontario Secondary School Diploma, Grade 11* *2021–2026*
Advanced Placement Honours Student
- 4.0 GPA (2022-2023, 2023-2024, 2024-2025 academic years)
- Honor Roll recipient (2022-2023, 2023-2024, 2024-2025)

**SAT**: 1550 (March 2025): 760 English, 790 Math

**AP Exams**: Physics 1: 5, Physics 2: 5, Biology: 5, Chemistry: 5, Calculus AB: 5, AP CS A: 4, AP Statistics: 4

## Academic Awards & Honors

### Biology & Life Sciences

**2025**: Canadian Biology Olympiad – Gold Medalist

**2025**: British Biology Olympiad – Gold Medalist

**2025**: University of Toronto National Biology Scholar (46th nationally, 98th percentile)

**2025**: USA Biology Olympiad – Semifinals Qualifier (30/50, top 500 internationally)

**2025**: HOSA – FLC 10th Place in Medical Math and SLC 15th in Medical Math

**2024**: Canadian Biology Olympiad – Bronze Medalist

**2024**: British Biology Olympiad – Bronze Medalist

**2023**: USA Biology Olympiad – Honorable Mention (21/50)

### Mathematics & Computer Science

**2025**: USA Computing Olympiad – Bronze Division Perfect Score (1000/1000), Promoted to Silver

**2025**: Canadian Open Mathematics Challenge – Performance with Distinction (1st Quartile)

**2022**: AMC10 Honor Roll (105.0/150.0)

**Multiple**: University of Waterloo Contests: Honor Roll & Certificates of Distinction across Pascal, Galois, Cayley, Fermat, Hypatia, CIMC, CSMC, and CCC competitions

### Chemistry & Physics

**2025**: University of Waterloo Avogadro Contest – Certificate of Distinction, School Champion (38/40)

**2024**: AAPT Physics Bowl – Top 10% of participants (28/40)

**2023**: AAPT Physics Bowl – Top 25% of participants (18/40)

### Astronomy

**2023**: International Astronomy Olympiad – Team Canada Member

**2023**: Canadian Astronomy and Astrophysics Olympiad – Honorable Mention

## Research Experience

**University of Toronto - Bader Lab** **Toronto, ON**
*Research Assistant* *July 2025–Current*
Research on using machine learning to predicting bacterial traits
- Built datascrapers for multiple biological info. databases
- Built bacterial genome annotators and genomic data aggregators for protein and domain family info.
- Built Random Forest Classifiers to predict the traits of bacteria from genomic information

**Albion College – Summer Science Program International** **Albion, MI**
*Student Researcher* *June–July 2025*
Research on the biophysics and evolution of antibiotic resistance
- Researched the development of gentamicin resistance in V. natriegens using a morbidostat and bioinformatic tools
- Techniques: Aseptic technique, PCR, NanoDrop UV/Vis spectroscopy, working with morbidostat, Galaxy bioinformatics

**SynPEC Workshop – University of Toronto** **Toronto, ON**
*Intern* *July 2024*
Molecular cloning and synthetic biology workshop focusing on in vivo and in silico techniques
- Performed allele-specific PCR, gel electrophoresis, and micropipetting
- Gained experience in DNA and protein purification techniques
- Utilized computational tools for cloning simulation (SnapGene, Benchling)
- Techniques: PCR, cell culture, plasmid transformation, agarose gel electrophoresis, His-tagged protein nickel-bead pull-down assay, Bradford assay, NanoDrop UV/Vis spectroscopy, DNA Golden Gate Assembly

**Inspirit AI** **Remote**
*AI Scholar* *June–August 2023*
Research on algorithmic bias and discrepancy in AI legal applications
- Conducted scholarly research on machine learning bias in legal systems
- Collaborated with research team on AI ethics and fairness

## Projects

**2025**: Bacteria Trait Predictor through Genomic Data

**2025**: High School Big Data Challenge – Eastern Canada National Finalist and winner of $1,000 CAD Let's Talk Science Analytic Talent Award and published manuscript: "A Geospatial Approach to Identifying Optimal Adolescent Mental Health Service Locations in Toronto"

**2025**: Toronto Science Fair – Gold Medalist with project An Investigation into the Possibility of Using Genetically Engineered Cyanobacteria in Enriching Soil Quality

## Professional Experience

**Shad Canada** **McMaster University, Hamilton, ON**
*Shad Fellow* *July 2024*
Participated in prestigious month-long STEM and entrepreneurship program

**Christ Emmanuel Community Church** **Toronto, ON**
*Camp Counselor* *July–August 2023*
Supervised children's activities, resolved conflicts, communicated with parents, maintained safety protocols

**Li Wang School of Music** **Markham, ON**
*Drum Instructor* *October–November 2020*
Developed customized lesson plans, taught percussion techniques, maintained student progress records

## Extracurricular Activities

### Clubs & Teams

**Crescent Medical Society** **Toronto, ON**
*Vice President & Training Coordinator* *Sept 2024–Present*
HOSA 2024-2025: Medical Math 10th place (FLC Canada), 15th place (SLC)

**Crescent School** **Toronto, ON**
*Advanced Placement Student* *Sept 2022–Present*
Active member/executive in: Medical Society, Outreach Council, Ethics Bowl, Debate, CaYPT Team, Computer Science Club, Math Club, Physics Club, Data Science Club, School Journal (Columnist)

**FIRST Robotics Team 610** **Toronto, ON**
*Software Team Member & Scouting App Junior Lead* *Sept 2022–June 2025*
Technical skills: Java, TypeScript, React.js, JavaScript, Firebase, Autodesk Fusion 360

### Athletics

**Current**: Varsity Badminton Team

- Eastern Toronto CISSA Champion
- CISSA Finals 3rd Place

**Past**: U16 Swim Team, U16 Cross Country Team, U16 & U18 Badminton Teams

## Certifications

**Lifeguard**: National Lifeguard Certification (Credential: LIJHNV)

**First Aid**: Standard First-Aid and CPR-C Certification

**Instruction**: Swim Instructor Certification

## Technical Skills

**Programming**: Python, C++, Java, RStudio, TypeScript, JavaScript, React.js, Firebase

**Scientific**: PCR, Cell Culture, DNA Purification, Gel Electrophoresis, Protein Purification, UV/Vis Spectrophotometry

**Software**: SnapGene, Benchling, Galaxy, Chimera/ChimeraX, LeDock, AutoDock Vina, PyRx, Rosetta, Pymol, Autodesk Fusion 360, Stellarium

**Research**: Programming, Machine Learning, Statistical Analysis

**Languages**: English, Mandarin, French