

# 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:** Junior International Olympiad on Astronomy and Astrophysics – Team Canada Member

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

## Research Experience

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### 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

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**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

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### 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

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### Clubs & Teams.....

#### **Crescent Medical Society**

*Vice President & Training Coordinator*

HOSA 2024-2025: Medical Math 10th place (FLC Canada), 15th place (SLC)

**Toronto, ON**

*Sept 2024–Present*

#### **Crescent School**

*Advanced Placement Student*

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)

**Toronto, ON**

*Sept 2022–Present*

#### **FIRST Robotics Team 610**

*Software Team Member & Scouting App Junior Lead*

Technical skills: Java, TypeScript, React.js, JavaScript, Firebase, Autodesk Fusion 360

**Toronto, ON**

*Sept 2022–June 2025*

### 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

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

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

**Instruction:** Swim Instructor Certification

## Technical Skills

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**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