

Yeowon Yoon

(949)-390-3261 • yeowonyoon0109@gmail.com

EDUCATION

Troy High School | Student

Aug 2022 – Present

- **12th GPA:** 3.95 unweighted, 4.72 weighted
- **AP Scores: 14 exams, all scores 5**
- **SAT:** 1550 (Math: 800)
- **Dual enrollment @ CSUF:** Math 250A-Calculus III, Math 250B-Linear Algebra and Differential Equations, Math 335-Mathematical probability, Math 438-Stochastic Process, Math 320-Mathematical Computation

PREPROFESSIONAL EXPERIENCES

Machine Learning Troy Tech Intern

June 2025

Prof. Joshua Tallman, Concordia University Irvine

- Built a full ML/NIDS pipeline using NetFlow data; 91% recall RF, deployed web dashboard.
- Results adopted into the professor's curriculum.

MIT Beaver Works Medyletics Program

July 2025

MIT Lincoln Laboratory – Beaver Works Summer Institute

- Co-authored peer-reviewed IEEE URTC paper (**Top 10 Graded Paper**).
- Developed NeuroPlay, an ML system detecting Parkinson's biomarkers using FNN/RF models.

COSMOS – Cluster 5: Computers in Biophysics & Robotics

June – July 2024

University of California, Davis

- Simulated bacterial chemotaxis using stochastic modeling and programmed autonomous submarine robots.

LEADERSHIP AND COMMUNITY EXPERIENCES

Web Development Club

August 2023 – Present

Co-Founder & President | Troy High School

- Launched troywebdev.com, Troy's official centralized digital directory (100+ clubs registered).
- Selected as 8 clubs to represent tech programs in Troy Tech fair 3 times.

Physics Club

August 2025 – Present

Founder & President | Troy High School

- Led team to 4th place in Southern California PhysicsBowl; served as top scorer on school team.
- Hosted the F=MA exam and internal TroPhy competitions.

AWARDS AND DISTINCTIONS

Top 10 Graded Paper Award | IEEE MIT URTC – Top 10 highest-scored research papers, Oct 2025

United States Physics Olympiad (USAPhO) Qualifier | AAPT – Feb 2024

NMSC NHSPC 2nd Place (National) | National High School Physics Competition – Physics, Apr 2025

NMSC NHSPC 2nd Place (California) | National High School Physics Competition – Physics, Apr 2025

PhysicsBowl School Top Scorer & Team 4th Place | AAPT – Physics (Southern California Region), Apr 2025

Peer-Reviewed Publication, Primary Author | IEEE URTC – Research Paper (International), Oct 2025

AIME Qualified (AMC 12 A&B) | Mathematical Association of America – Mathematics, Nov 2024

MathCon Finalist (2X) | MathCon – Mathematics, 2023, 2024

Presidential Volunteer Service Award – Gold | Discovery Cube – Community Service, Apr 2023

Congressional Award (Gold Medal, STEM Star) | The Congressional Award Foundation – National Service, 2026

AP Scholar with Distinction (2X) | College Board – Academics, July 2024 & July 2025