

Alejandro Stoechr Ito

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EDUCATION

Northeastern University

Candidate for Bachelor of Science in Mechanical Engineering

Minors: Mathematics, Music Performance

NU.in Program – Dublin, Ireland (Fall 2024)

Activities: AeroNU (NULI Airframe Team), NU Theme Park Engineering Club (TPEC), NU Concert Band (Trumpet, 2nd Chair)

Honors & Awards: Dean's List (Spring 2025)

Relevant Coursework: Calculus I–III, Physics I–II, Statics, General Chemistry, Cornerstone of Engineering

Boston, MA

May 2028

GPA: 3.83

Hong Kong International School

High School Diploma

Activities: Wind Ensemble (Trumpet Section Leader), AMIS Honor Band, Varsity Tennis,

Honors & Awards: AP Scholar, Director's Award (Wind Ensemble), Performance with Distinction (AMIS Solo Festival)

Hong Kong

May 2024

ENGINEERING EXPERIENCE

VEX Robotics

Robotics Educator & Research Intern

Hong Kong

May – June 2025

- Conducting a research project on APAC education systems to identify opportunities for robotics curriculum development.
- Completing certification to become a VEX Robotics Educator, gaining hands-on experience in robot assembly, programming, and classroom integration.
- Building and coding the VEX EXP robot, with certifications in block-based and Python programming.
- Participating in robotics challenges to apply automation, coding, and problem-solving skills.

AeroNU – NULI Airframe Team

Mechanical Design Member

Boston, MA

Spring 2025 – Present

- Designed and simulated a liquid-propulsion rocket airframe using OpenRocket and SolidWorks, achieving a predicted apogee of 1000 m.
- Modeled aerodynamic and structural parameters, optimizing materials, geometry, and weight for stability.
- Created 3D CAD assemblies and sourced components such as parachutes, shock cords, and body tubes.
- Currently coordinating the ordering of all major components with the goal of constructing and launching the rocket by the end of Winter 2025.

NU Theme Park Engineering Club (TPEC)

Ride Engineering Competition Team

Boston, MA

Fall 2025 – Present

- Designing and building a small-scale ride for the Ride Engineering Competition (REC) using NoLimits 2, Arduino, SolidWorks, and FVD++.
- Designed and 3D-printed an RFID chip holder and programmed Husky Bands, a campus wristband prototype integrating Arduino-based RFID scanning.

Undergraduate Research Assistant (Trainee)

Northeastern University, Dept. of Mathematics

Boston, MA

Fall 2025 – Anticipated Spring 2026

- Preparing to assist Professor Zhiyuan Zhang in research on kinetic models in plasma theory, including the relativistic Vlasov–Maxwell and Vlasov–Poisson systems.
- Building foundations in mathematical modeling, equilibrium stability, and wave propagation for future assistance in Prof. Zhang's research.

ADDITIONAL EXPERIENCE

Hong Kong International School

Honors Physics Teaching Assistant

Hong Kong

Aug 2023 – May 2024

- Supported instruction and lab setup for Honors Physics; led student review sessions and demonstrations for 80+ students.

SKILLS, LANGUAGES, AND CERTIFICATIONS

Skills: SolidWorks, AutoCAD, OpenRocket, Circuits & Sensors, NoLimits 2, Python, Arduino, FVD++

Languages: English (Fluent), Spanish (Working Proficiency)

Certifications: VEX EXP Educator ([Credential](#)) · Computer Science Level 1 – Blocks ([Credential](#))
· Computer Science Level 1 – Python ([Credential](#))