

# Huy Huong

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## Education

University of Bridgeport Honors Program,

Expected May 2025

BS in Computer Science & Mathematics, Minor in Physics

- Cumulative GPA: 3.637/4.0
- **Coursework:** Fluid Mechanics, Advanced Data Analytics, Analysis of Algorithms, Partial Differential Equations, Real Numerical Analysis

## Honors and Awards

University of Bridgeport Outstanding Involvement by a Junior Award, Spring 2024

Upsilon Pi Epsilon International Honors Society: Delta Chapter, Spring 2022 - Present

Connecticut Space Grant Consortium Undergraduate Scholarship, Fall 2022

University of Bridgeport Honors Program, Fall 2021 - Present

University of Bridgeport College of Engineering Dean's List, Fall 2021 to Spring 2024

## Conference Presentations

- [1] **H. Huong**, J. Medina, A. Armatis, and C. Lara. **Abstract Accepted** "LawnBot: Affordable Autonomous Lawnmowers for Consumer Usage". *2025 ASEE Annual Convention and Exposition (ASEE 2025)*. The American Society for Engineering Education. Montreal, Canada, June 2025.
- [2] **H. Huong**, J. Pallis, S. Gudi, K. Bird, J. Urrea Vargas, M. Al Torzi, and V. Sripada. **Abstract Accepted** "Near Space Robotics Project". *2025 ASEE Annual Convention and Exposition (ASEE 2025)*. The American Society for Engineering Education. Montreal, Canada, June 2025.
- [3] V. Sripada, **H. Huong**, J. Pallis, J. Urrea Vargas, M. Al Torzi, S. Gudi, and K. Bird. **Abstract Accepted** "Modification of a 1-Person Submarine for Remote Control Operation". *2025 ASEE Annual Convention and Exposition (ASEE 2025)*. The American Society for Engineering Education. Montreal, Canada, June 2025.
- [4] **H. Huong**, J. Pallis, V. Sripada, J. Urrea Vargas, S. Gudi, A. Saoudi, D. Howard, R. Beadle, D. Mestre, L. Reed, G. Moyher, and S. Zhang. **Poster** "High Altitude Ballooning During the 2023 Annular Solar Eclipse". *Between Eclipse Research Conference (BERC 2024)*. Academic High Altitude Conference. Virtual, Jan. 2024.
- [5] **H. Huong**, J. Pallis, V. Sripada, J. Urrea Vargas, D. Howard, D. Mestre, L. Reed, G. Moyher, and S. Zhang. **Poster** "High Altitude Monkey 2.0". *Between Eclipse Research Conference (BERC 2024)*. Academic High Altitude Conference. Virtual, Jan. 2024.

## Research Experience

**Undergraduate Researcher**, Exploring Naval Underwater STEM – Bridgeport, CT

Dec 2023 to Present

- Working on upgrading "The Explorer" submarine to an autonomous system by addressing corrosion issues and implementing design changes, ensuring progress towards the Summer 2025 deadline
- Tasked with improving deep-sea exploration capabilities, I constructed, modified, and operated a BlueROV 2 kit with high-precision sonar, enabling successful dives and data collection at depths of up to 500 meters
- Developed VBA macros in Excel to automate weekly schedule tracking and calculations, streamlining processes by interpreting color-coded cells, saving time, and reducing errors in project management
- Office of Naval Research (ONR) FOA N00014-21-S-F004 Science, Technology, Engineering & Mathematics (STEM), Education and Workforce Program, "Exploring Naval Underwater STEM (Exploring NUSTEM)"

**Student Pod Lead**, Nationwide Eclipse Ballooning Project (NEBP) – Bridgeport, CT

Sept 2022 to Present

- Accomplished successful data collection during the Annular and Total solar eclipses by leading a team of 10 engineers to design payload systems that withstood 100+ MPH winds and altitudes over 100,000 feet
- Accomplished real-time flight tracking and internet broadcasts by developing a telemetry GUI to track GPS and

video signals from high-altitude balloons, resulting in live footage capture across 33 miles

- Ensured successful completion of project milestones by supervising several teams of students and faculty across the East Central Region, resolving hardware and software issues, resulting in efficient project execution
- Improved team communication and project progress by organising weekly meetings and collaborating with the Principal Investigator, resulting in milestones being met on time
- National Aeronautics And Space Administration, Subaward Title: Montana Space Grant Consortium Opportunities in STEM 2020-2024, Subaward ID: G355-22-W9649

**Team 2149 Lead**, Great Lunar Expedition for Everyone (GLEE) – Bridgeport, CT Apr 2022 to Sept 2023

- Led an interdisciplinary team of 10 to design, test, and prepare for the launch of “LunaSat” payloads, which were engineered to conduct localized scientific missions on the lunar surface
- Facilitated team meetings and cross-functional collaboration, improving communication and ensuring efficient problem-solving throughout the project

## Projects

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### Senior Design Project: LawnBot

- In development of an autonomous lawnmower vehicle for outdoor clean up via the usage of ultrasonic sensors and machine learning to routinely handle lawn maintenance

### P.O.L.I.: Robotic Parrot

- Developed a bilingual speech recognition engine in C++ using the Nano BLE Sense onboard microphone to address the need for real-time transcription, significantly enhancing the project’s interactive capabilities
- Created a virtual 3D “parrot-like” model in SolidWorks by drafting all parts to scale and applying geometrical constraints, improving the accuracy of the prototype’s visualization and its presentation to stakeholders

### HAM 2025: High Altitude Robotic Monkey

- In development of reconstructing and developing a high altitude robotic monkey for near space research, improving motions and circuitry to reduce payload weight
- Consolidated circuits and designed a custom PCB to streamline connections and improve power delivery

## Employment

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**STEM Instructor**, University of Bridgeport STEM on Wheels – Bridgeport, CT May 2023 to Present

- Designed and delivered engaging, hands-on STEM lessons and activities for K-12 students, bringing science, technology, engineering, and mathematics concepts to life through mobile outreach
- Enhanced student understanding of complex STEM topics by offering unique, immersive experiences within a mobile laboratory setting, sparking interest in fields like robotics, coding, and engineering
- Adapted STEM curriculum to different grade levels, ensuring that students from elementary through high school could participate in and benefit from advanced, hands-on experiments

**Undergraduate Researcher**, UB Extreme Environments Laboratory, Bridgeport, CT Sept 2022 to Present

- Led outreach efforts for grants funded by the National Science Foundation, U.S. Naval Department of Education, and NASA, providing STEM materials and hands-on activities to underserved, low-income communities
- Conducted experiments and tests on materials and systems in extreme conditions to validate their performance for aerospace and deep-sea applications

**Tier 1 Support Agent**, University of Bridgeport IT Helpdesk, Bridgeport, CT Sept 2021 to Jun 2022

- Diagnosed and resolved technical problems using support materials and hands on expertise
- Assisted students and faculty through troubleshooting processes, providing resources for future reference in the event of similar future issues
- Set up and configured PC workstations across campus to ensure stable operations for students and faculty

## Leadership & Service

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**Aerospace Club**, University of Bridgeport, Bridgeport, CT  
*President*

Apr 2022 to Present

- Led and organized club activities, workshops, and guest lectures focused on aerospace engineering topics, fostering collaboration and hands-on learning opportunities for students across multiple disciplines.

**Student Government Association**, University of Bridgeport, Bridgeport, CT  
*Member*

Sept 2022 to Present

- Worked with clubs and communities across campus to initiate programming for the entire student body.

## Skills

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**Languages:** C + + , C, Java, Python, VBA

**Software:** AutoCAD, Solidworks, MATLAB, MS Suite

**Machining:** 3D Printing, Laser Cutter, Lathe, Mill

**Other:** Live Telemetry Systems, High Altitude Ballooning