

Huy Huong

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Education

University of Maryland, MS in Aerospace Engineering	Expected May 2027
University of Bridgeport Honors Program, BS in Computer Science & Mathematics, Minor in Physics	May 2025
<ul style="list-style-type: none">Cumulative GPA: 3.692/4.0Coursework: Fluid Mechanics, Advanced Data Analytics, Analysis of Algorithms, Heat Transfer	

Honors and Awards

Academic Achievement Award for BS. Computer Science Recipient, Spring 2025
University of Bridgeport Outstanding Involvement by a Junior Award Recipient, Spring 2024
Upsilon Pi Epsilon International Honors Society: Delta Chapter Member, Spring 2022 - Spring 2025
Connecticut Space Grant Consortium Undergraduate Scholarship Recipient, Fall 2022
University of Bridgeport Honors Program, Fall 2021 - Spring 2025
University of Bridgeport College of Engineering Dean's List, Fall 2021 - Spring 2025

Conference Proceedings

- [1] **H. Huong**, J. Medina, A. Armatis, C. Lara, and S. Patel. "LawnBot: Affordable Autonomous Lawnmowers". *2025 ASEE Northeast Conference*. The American Society for Engineering Education. Bridgeport, Connecticut, USA, Mar. 22, 2025.
- [2] **H. Huong**, M. O. Al-Torzi, J. Urrea Vargas, R. Mitra, N. Zoghb, and J. Pallis. "University of Bridgeport High-Altitude Ballooning Program - Past and Future". *2025 Scientific Ballooning Technologies Workshop*. Scientific Ballooning Technologies. Minneapolis, MN, May 15, 2025.
- [3] **H. Huong**, J. Urrea Vargas, V. Sripada, D. Howard, J. Pallis, 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. 19, 2024.
- [4] **H. Huong**, J. Urrea Vargas, V. Sripada, A. Saoudi, S. Gudi, D. Howard, R. Beadle, J. Pallis, 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. 19, 2024.

Conference Presentations

Research Experience

Undergraduate Researcher , Exploring Naval Underwater STEM – Bridgeport, CT	Dec 2023 to Present
<ul style="list-style-type: none">Working on upgrading "The Explorer" submarine to ROV by addressing corrosion issues and implementing design changes, ensuring progress towards the Summer 2025 deadlineTasked 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 metersDeveloped 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 managementOffice 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
<ul style="list-style-type: none">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

Senior Design Project: LawnBot

- In development of an autonomous lawnmower vehicle for routine lawn care maintenance via the usage of ultrasonic sensors and machine learning

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
- In development of custom circuitry to streamline connections and improve power delivery

Parrot Oriented Logical Interface (POLI)

- 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

Employment

Graduate Research Assistant, University of Maryland Motion and Teaming Laboratory – College Park, MD May 2023 to July 2025

- 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

STEM Instructor, University of Bridgeport STEM on Wheels – Bridgeport, CT May 2023 to July 2025

- 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 Aug 2025

- 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

Aerospace Club, University of Bridgeport, Bridgeport, CT Apr 2022 to Present
President

- 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 Sept 2022 to Present
Member

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

Skills

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