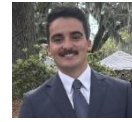


GREGORY A. BURGESS

SUBMARINE OFFICER



EDUCATION

Massachusetts Institute of Technology & Woods Hole Oceanographic Institution 2022
M.S. Mechanical Engineering | Certificate in Business Analytics (MIT Sloan)

United States Naval Academy 2020
B.S. Robotics and Controls Engineering | Top 10% of Class

ACADEMIC EXPERIENCE

Guest Investigator, Woods Hole Oceanographic Institution, MA 12/2024-Present
Deep Submergence Lab

- Principle Investigator: Dr. Richard Camilli

MIT/WHOI Joint Program in Applied Ocean Science and Engineering 2020-2022
Graduate Student, Dept. of Applied Ocean Physics and Engineering

- Thesis: "In-situ Characterization of Sea State with Improved Navigation on an Autonomous Underwater Glider"
- Thesis Advisor: Dr. Richard Camilli

Summer Student Fellow, Woods Hole Oceanographic Institution, MA 05/2019 – 07/2019

Undergraduate Research Assistant, United States Naval Academy, MD 2018-2020
Undergraduate Student, Robotics and Control Science Engineering Dept.

- Undergraduate Thesis: Investigate Vector Magnetic Navigation for Maritime Application
- Advisor: CDR P. J. Frontera

PROFESSIONAL EXPERIENCE

Naval Officer, LT 2022-Present
Submarine Officer, USS Charlotte (SSN 766), Pearl Harbor, HI.

- Division Officer onboard a Los Angeles Class Attack Submarine. Leads a nuclear-trained engineering division of roughly 15 sailors in a challenging, technical environment. Manages complex engineering evolutions during in-port maintenance periods and serves as a lead supervisor of the nuclear plant onboard US Navy submarines while at sea.

Submarine Officer Basic School and Leadership Course 06/2023-08/2023

- Theoretical and hands-on instruction in the tactical operation of nuclear-powered submarines and the leadership of young sailors.

Nuclear Power Training Unit 09/2023-03/2024

- NPTU trains and qualifies Sailors to operate the nuclear power plants onboard the Navy's aircraft carriers and submarines. This is done by utilizing operational reactors for extensive, hands-on practical application. This mission is performed in concert with the professionals of the Knolls Atomic Power Laboratory (KAPL) and the Naval Reactors Representatives Office (NRRO).

Nuclear Power School - Naval Nuclear Power Training Command 11/2022-05/2023

Graduated with Distinction

- A complex, graduate-level 24-week engineering program for Naval Nuclear Power, Naval Nuclear Power Training Command trains officer and enlisted students in the science and engineering fundamentals regarding the design, operation, and maintenance of naval nuclear propulsion plants.

PEER-REVIEWED PUBLICATIONS

Phung, A., Billings, G., **Burgess, G.**, Camilli, R., “An Autonomous Underwater Glider with Improved Onboard Navigation for Unattended Mapping,” *IEEE Journal of Oceanic Engineering*, To be published in Special Issue on the IEEE 2024 AUV Symposium.

Ventola, P., **Burgess, G.**, Claus, B., Camilli, R., “An Autonomous Underwater Glider with Improved Transport Efficiency,” *IEEE Journal of Oceanic Engineering*, To be published in Special Issue on the IEEE 2024 AUV Symposium.

SELECTED CONFERENCE PRESENTATIONS

G. A. Burgess, Z. Duguid, R. Camilli, P. Ventola, “No Bottom, No Problem – A Simplified DVL-Reinforced Navigation Process for Autonomous Vehicles,” 2022 Ocean Sciences Meeting, Virtual, 2022.

G. A. Burgess, P. Ventola and R. Camilli, "Got Ice? - A Statistical Approach to Marking Sea Ice and Atmospheric Conditions with a Low-Powered Imaging Sonar," 2020 IEEE/OES Autonomous Underwater Vehicles Symposium (AUV), St. Johns, NL, Canada, 2020, pp. 1-6, doi:10.1109/AUV50043.2020.9267944.

LICENSES AND CERTIFICATIONS

Fundamentals of Engineering (FE) Exam

National Council of Examiners for Engineering and Surveying

Issued Sep 2022

Business Analytics Certificate

MIT Sloan School of Management

Issued May 2022

AWARDS AND ACHIEVEMENTS

Admiral Frank Bowman Scholarship

United States Naval Academy

Apr 2019

- Scholarship offered by the Naval Academy to a small group of midshipmen seeking initial service assignment to the nuclear Navy. The Bowman scholar program is comprised of a research project, a summer internship, early selection in the Nuclear Navy, and graduate opportunities at the Naval Postgraduate School.

SKILLS

Coding: Python, ROS, MATLAB, C++, HTML, CSS, JavaScript, RStudio