EVAN HEADLEY

PROFESSIONAL EXPERIENCE

2025 - Present

Consulting Engineer and Surveyor, MARTIN, OTTAWAY, van HEMMEN & DOLAN, INC. Areas of specialization include forensic engineering, human factors, vehicle design and operations, structural surveys, naval architecture and project management.

2022- 2025

Naval Architect | Advance Machinery Systems Integration c/326, NSWC Philadelphia Division, Philadelphia, PA

- Proposed, captured, planned, and managed over $2 million in power system integration feasibility and risk studies for the Fleet Energy Research and Development Program and Office of Naval Research bringing the technology from a TRL 4 to TRL 7 with plans to reach TRL 9 by 2029.

- Lead cross-organization project teams of 5-15 members to deliver Unmanned Surface Vessel (USV) indicative designs. Facilitated a bridge between HM&E and Naval Architect groups. Communicated status updates and presented design reviews through multiple design iterations with the program management office.

- Developed test plans, safety and risk assessments, and maintenance procedures for use in pre-test Mission Readiness Panels (MRP) at the Power and Energy Dynamic Assessment Laboratory (PEDAL) Land Based Test Site (LBTS).

- Used shipboard operational data and global operating conditions with power and propulsion system optimization modeling to develop energy efficient operating guides for shipboard use.

- Evaluated and realigned the MOEs, MOPs, and requirements of a performance specification to allow for an enhanced and converged ship design space.

- Provided HM&E SME support for fleet table top exercises and wargames in conjunction with the program management office and OPNAV for use in requirements development.

- Performed validation of Key Performance Parameters (KPPs) and Key Operational Parameters (KOPs) of delivered vessels for the program management office and OPNAV.

2021

Naval Architect Intern | SMART Scholarship Program, NSWC Philadelphia Division, Philadelphia, PA

- Evaluated power and propulsion technologies that can be combined to improve the efficiency and reliability of power generation systems operated in USVs

- Developed a USV design synthesis model in a multi-objective trade space environment used in current surface platform design.

2019

Mechanical Engineering Intern, Viking Yachts Company, New Gretna, NJ

- Completed mechanical installation of engines, generators, running gear, gyro-stabilizers, liquid and HVAC systems.

- Performed quality control inspections and completed pre-delivery repairs on mechanical systems.

EDUCATION AND PROFESSIONAL QUALIFICATIONS

25 Ton Master Captain's License, In Progress 2025

Project Management Professional (PMP), In Progress 2025

Acquisition Professional Membership, July 2025

Massachusetts Institute of Technology Professional Summer – Surface Ship Combat System Design and Integration Certificate, August 2024

Master of Operational Energy (MOE), Naval Postgraduate School, Monterrey, CA, March 2025:

- Unmanned Autonomous Persistence Certificate
- Refuel Logistics Certificate
- Directed Energy Certificate

Bachelor of Engineering in Naval Engineering, Stevens Institute of Technology**,** Hoboken, NJ, May 2022

Memberships

Society of Naval Architects and Marine Engineers (SNAME)
American Society of Naval Engineers (ASNE)

Awards

Science, Mathematics, and Research for Transformation (SMART) Scholar, Department of Defense (DOD), 2020-2022

Languages: English

Nationality: US Citizen

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