

Nathaniel Phillips

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EDUCATION

- **Webb Institute** Long Island, NY
Dual Bachelor of Science - Naval Architecture & Marine Engineering; GPA: 3.52 August 2019 - June 2023
Courses: Thesis, Ship Design II, Engineering Economics, Ship Dynamics, Ship Propulsion Systems, Ethics
- **RL Turner High School** Carrollton, TX
High School Diploma; GPA: 4.0 August 2014 - June 2019
Overview: Graduated valedictorian, Sophomore gap year to pursue Chinese studies in Taiwan. Active in swimming, diving, & tennis.

SKILLS SUMMARY

- **Languages:** C++, C#, C, Python, Java, VBA, Verilog, IronPython, CUDA
- **Frameworks:** .NET, Angular
- **Tools:** Docker, GIT, MySQL, WPF, OpenGL
- **Platforms:** Linux, Windows, Arduino, Raspberry, FPGA
- **Soft Skills:** Leadership, Event Management, Problem-solving, Time Management

EXPERIENCE

- **Herbert ABS Software Solutions** Alameda, CA
Software Engineering Intern May 2022 - September 2022
 - **Genetic Algorithm Optimization:** Co-created genetic algorithm library (NGSA-II) which optimizes ship tank and cargo distribution in C#.
 - **Python Scripting:** Ported VB6 scripts to Python 2.7. The scripts test ship alarms and Auto-Ballast systems.
 - **Data Plotting:** Used C# library (Oxyplot) to plot power curves and optimal ship data.
- **BAE Systems** Norfolk, VA
Software Engineering Intern January 2022 - February 2022
 - **Ship Data-sheet Merger:** Python project that parsed data from three different sources and combined all the data into one excel sheet.
 - **CPI System:** Used Excel to create a CPI analysis visualization through the use of pivot tables and Microsoft PowerBI.
 - **Scheduling:** Performed ship scheduling system overhaul to incorporate new data points and enable faster system run-times.
- **Vigor Industrial** Seattle, WA
Project Management Intern July 2021 - August 2021
 - **Schedule Conflict Manager:** Used VBA to create a program that filtered schedule data based on tags and showed all schedule conflicts between ship superintendents.
 - **Ship Progress Audit:** Used the diagrams for the Guided Missile Cruiser, to progress electrical systems aboard.
 - **Superintendent Shadowing:** Performed scheduling on the Littoral Combat Ship, including welding, painting, installs and removals based on current contracts.
- **Metal Shark Boats** Rijeka, Croatia
Engineering Intern January 2021 - March 2021
 - **Scantling Calculations:** Performed scantling calculations for small craft as per ABS regulations and generated the frames for the vessel in AutoCAD.
 - **FEA:** Performed FEA on different ship systems including fire monitors, hand rails, and engines as per ABS regulations.
 - **Rhino:** Started initial Rhino design for a 100m sailboat from AutoCAD design.

PROJECTS

- **Collision Avoidance on Autonomous Vessels (Reinforcement Learning through Unity):** (Thesis work in progress)
Research oriented, open source, search engine for bringing reverse multimedia search to small & mid scale enterprises. Tech: Unity, TensorFlow, Python, C & C++. (August '22)
- **School Store Kiosk:** C# based form that lets the user select themselves and checkout different foods drinks which gets automatically reflected in the treasury database. Tech: C++, C# with WPF & SQL. (July '22)
- **School Voting System:** Automated waterfall voting system for school elections which is still in use today. Tech: C++, C# with WPF & SQL. (October '2020)
- **Crypto Mining Automation:** Automated program that resets different rigs based on input from HiveOS API using micro-controllers and C++. (April '2021)

HONORS AND AWARDS

- Eagle Scout - October, 2018
- SNAME Ship Design Competition (2nd) - August, 2022
- College Deans List - June, 2022
- High School Valedictorian - June, 2019