

Callum J. Novak

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Work Experience

Freelance Web Developer

Multiple clients

West Hartford, CT
03/22 to present

- Built and continue to update and maintain portfolio webpage for small landscape design business
- Developed new features for the homepage web redesign of a multinational tech company, launched in early 2022
- Worked with design team to implement and deliver features for monthly releases, improve responsiveness, accessibility, and page performance
- Technologies: HTML, CSS, JavaScript, Node.js, React.js, Git

Teaching Assistant

West Hartford Public Schools

West Hartford, CT
10/22 to present

- Assisted in classes across all subjects at the High School level
- Provided Information Technology support in the classroom and main office
- Supported administration in planning substitute teacher coverage for the school

Aerospace Engineer

Naval Surface Warfare Center Dahlgren Division

Dahlgren, VA
10/16 to 10/21

- Supported At Sea, Dockside, and Land Based Pre-Launch Alignment Testing for Tactical Tomahawk Weapon Control System
 - Conducted Pre-Launch Alignment Testing, analyzed data and provided analysis to Program Management and contractors; analysis supported evaluation of Weapon Control System software, as well as hardware
 - Created new and maintained existing MATLAB tools for processing Alignment Testing data collected in test events; wrote and updated user guide documentation; used tools to perform quality assurance before fleet release of software build
 - Composed and updated user guide documentation for Alignment Analysis Tools
 - Using these tools, performed quality assurance before fleet release of software build
 - Ported existing tools from MATLAB to Java; performed code review on tools developed by other members of the Analysis Group
- Completed a project working on trajectory optimization as one of three team members during a rotation with an external department, as part of the New Employee Development Program
 - Developed a genetic algorithm implementation in Java
 - Project produced satisfactory solutions in significantly shorter time than previous methods
 - Composed and presented a technical brief for division leader
- Successfully delivered a new test tool version in an Agile development group
 - Observed testing process which involved manual translation of hex words in data messages
 - Updated and enhanced the existing C++ test tool to automate the translation process to make the messages human readable
 - Reduced processing time from an hour per mission to a few seconds

Education

University of Virginia, School of Engineering and Applied Science

BS, Aerospace Engineering, Graduated May 22, 2016 with distinction, 3.480 GPA

Charlottesville, VA
08/12 to 05/16

Project Highlights

- **Team Leader, Aircraft Design**
 - Led the aerodynamics technical group on a Capstone design team to design a Distributed Electric Propulsion regional commuter plane for the NASA Student Design Competition; design placed first in the competition
- **Team Member, Spacecraft Design**
 - Developed a conceptual design of the communications architecture for our three-satellite constellation on the communications team, which NASA launched on April 17, 2019

Technical Skills

- Technologies: JavaScript, HTML, CSS, Node.js, Express.js, MongoDB, React.js, MATLAB, Git
- Intermediate experience in Java, working in an Agile environment