Callum J. Novak

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Work Experience

Freelance Web Developer
Brooklyn, NY

Fortune 100 Tech Company
03/22 to 06/22

- 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

Aerospace Engineer
Dahlgren, VA

Naval Surface Warfare Center Dahlgren Division
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 then 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
- Completed work-provided online courses in Java, C++, and MATLAB

Education

University of Virginia, School of Engineering and Applied Science
Charlottesville, VA

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

- Completed online coursework in JavaScript and HTML
- Currently completing Full Stack Developer career path on Codecademy
- Proficient in MATLAB; Microsoft Office Applications such as Word, Excel, and PowerPoint; and Google applications such as Docs, Sheets and Slides
- Intermediate experience in Java, with some experience working in an Agile environment