

## Alexander Hodge

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Learn more about me @ <https://www.AlexHodge.com>

### Education

Worcester Polytechnic Institute, Worcester, MA  
*Bachelor of Science in Aerospace Engineering*  
School of Engineering, Aeronautics with a focus in Global Studies

May 2022

### Experience

Analog Devices Federal (ADFED) Jun. 2022 – Present  
*Supplier & Manufacturing Quality Engineer*

- Issues external corrective actions, performs on-site process & quality audits, and holds regular meetings to resolve supplier quality issues.
- Utilizes lab equipment to collect data for failure analysis or root cause investigations.
- Facilitates the internal 8D corrective action process.
- Works with operators, inspectors, and process engineers to disposition non-conforming material.
- Performs pre-cap and final inspection on ADFED modules

Scituate Orthodontics, Inc. Jan. 2015 – Present  
*Chief Technology Officer*

- Implements innovative and creative technology methods for the sole purpose of making operational flow of the business smoother.
- Completes administrative tasks such as maintenance of software, inspection of hardware, and troubleshooting issues.
- Provides technical guidance to employees, orthodontic assistants, and orthodontist.

### Projects

*Design and Testing of Lattice Structures for Noise Reduction in Jet Engines* Aug. 2021 – Mar. 2022

- Used CAD and simulation software to design and test lattice structures for vibrational attenuation in jet engines.
- Utilized additive manufacturing methods (primarily 3D printing) to realize lattice structure designs.
- Conducted experimental testing on physical lattice structures in a laboratory setting.

*Strengthening WPI's Presence in the Pacific: A Plan to Launch the Oceania Hub* Oct. 2020 – Mar. 2021

- Collaborated with a skilled team of WPI undergraduates and professors to create a detailed action plan for the school to launch a project center in Oceania.
- Helped author a monograph paper that provides a detailed cultural and geographical history of Oceania.
- Interviewed prominent leaders, academics, and natives of Oceania and meaningfully integrated their thoughts into the action plan.

### Coursework: Engineering & Humanities

Fundamentals of Air-Breathing Propulsion, Aerospace Structures, Guidance and Navigation, Astronautics, Thermodynamics, Atmospheric and Space Environments, Project-Based Engineering Experimentation, Compressible and Incompressible Fluid Dynamics, Aerodynamics, Material Science, Intermediate Mechanics, Matrices and Linear Algebra, Physics – Electricity and Magnetism, Calculus I-IV, Physics – Mechanics

Inquiry Seminar: Writing about Technology Ethics, Social Science Research for the IQP, Global Environmental History, Introduction to International and Global Studies, Approaches to Global Studies, Essentials of Art, Modern Art, Mental Health, Fundamentals of Music, Economics and Entrepreneurship.