

# Chase Eldredge

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## EDUCATION

**University of New Hampshire**, Durham, NH May 2019  
B.S. in Mechanical Engineering GPA: 3.21

- Six Sigma & DOE
- Computer Aided Engineering
- Machine Shop
- Heat Transfer
- Experimental Measurement & Data Analysis
- Thermal Systems Analysis & Design
- Engineering Design & Solid Modeling
- Fluid Dynamics

## TECHNICAL SKILLS

- SolidWorks
- Siemens NX (Unigraphics)
- MATLAB
- Microsoft Office
- Solumina
- SAP
- Teamcenter
- Traceable-IT

## RELEVANT PROJECTS

*Member of UNH SEDS – Design and Manufacture of a Hybrid Rocket Engine*

- Designed a hybrid rocket engine consisting of injector plate, combustion chamber & nozzle
- Designed geared flow regulation system for nitrous oxide flow

*Analysis & design of drone propulsion system | (Team Leader)*

- Investigated the effects of ambient pressure and temperature on engine fuel consumption and thrust
- Studied overall cycle efficiency as individual components vary
- Made recommendations for optimal engine specifications from calculated data
- Utilized MATLAB for all computations and plotting, along with MS Word for technical report

## PROFESSIONAL WORK EXPERIENCE

**Pratt & Whitney** North Berwick, ME  
Design Engineer - Cold Section June 2019 – Present

**Pratt & Whitney** North Berwick, ME  
Manufacturing Engineer Intern May 2018 – Aug. 2018

- Wrote Traceable-IT software training manual for both working leaders and operators for BU 8500 & 8700
- Designed top plate and holding fixture to allow all engine model HPC split cases & 17/24K stators to be marked with new dot peen machine
- Worked alongside design engineer to solve an HPT brush seal producibility issue by modifying part design and print dimensions
- Supported business unit process certification/data collection for all engine models using Prolink, SFWF, Solumina, and Excel
- Assisted with tooling orders and the resulting print mark-ups/repair requests for BU needs

**Pratt & Whitney** North Berwick, ME  
Manufacturing Engineer Intern May 2017 – Aug. 2017

- Utilized CAD to design holding fixtures for HPC duct segments on NGPF and F135/F119 engine models to increase quality assurance during deburring processes
- Teamed with Module engineer to produce a new tool concept for improved process ergonomics and efficiency regarding the HPC split-case
- Utilized SAP and Excel for tooling inventory/tracking for F119 production & repair

- Gained valuable experience in both an office and shop floor manufacturing environment
- Communicated daily with shop floor personnel

#### **ADDITIONAL WORK EXPERIENCE**

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##### **Eldredge Construction**

*Framing/Finish Crew Member*

Sanford, ME

May 2016 – Aug. 2016

- Constructed residential homes & garages per blueprint specifications & town code
- Appropriately handled all tools related to trade
- Worked individually & with team throughout projects
- Gained valuable skills & knowledge relating to trade