Peter Ha

111 Kilsyth Rd, Apt 6
Brighton, MA 02135
peterha.com

857-321-1112
peterha@bu.edu
linkedin.com/in/peter-ha

Relevant Experience

Rogue Space Systems Corporation / Propulsion Engineer, Intern
January 2021 - Present, May 2022 - January 2021

- Integrated components and their interfaces for a 12U cubesat on a rapidly evolving mission on a tight timeline, while meeting regulatory and launch provider requirements
- Designed various brackets and mechanical interfaces in SolidWorks, and simulated mechanical stresses in Ansys Mechanical
- Liaised the integration of various parts from several manufacturers, ensuring their compliance with internal and external design criteria
- Prototyped rugged, low cost warm gas reaction control system thrusters for an upcoming mission
- Programmed scripting tools to assess mission viability via approximation of orbital mechanics
- Served as principal investigator on a Phase I SpaceWerx STTR investigating novel applications for location and orbital propagation on autonomous satellites not reliant on GPS

Boston University Rocket Propulsion Group / Vice Director, Engine Development Lead, Engine Development Engineer
September 2018 - May 2022

- Designed liquid bipropellant injectors on an extremely small budget, designing for a rapidly iterating prototype test campaign of small scale ablative engines
- Redesigned past injector for flight, dramatically cutting cost and complexity
- Pivoted from a new engine architecture towards iterating on a proven heritage, streamlining our testing timeline with a heavy focus on reducing cost, manufacturing difficulty, and system complexity
- Led a team of undergraduate and graduate students on a very tight timeline and budget in the redesign of a liquid bi-propellant, regeneratively cooled rocket engine

Education

Boston University
Class of 2022 **GPA: 3.15**

- Graduated with a degree in mechanical engineering
- Relevant Coursework: Mechanical Vibration, Compressible Flow and Propulsion, Aerodynamics, Space Vehicle Dynamics, Aircraft Performance and Design, Measurement and Instrumentation, Heat Transfer, Fluid Mechanics, Energy and Thermodynamics, Manufacturing Processes, Mechanics of Materials, Material Science, Intro to CAD, Electric Circuits, Probability Statistics and Data Science, Computational Linear Algebra

Skills

Design and Analysis
Rapid prototyping and iteration, design for manufacturing, design for assembly, robotics, rocket propulsion, orbital dynamics, SolidWorks, SolidWorks FEA, Solidworks Flow Analysis, MATLAB, Ansys Mechanical, Python 3, Systems Tool Kit, General Mission Analysis Tool

Manufacturing
Manual and CNC mills, manual and CNC lathes, additive manufacturing, GibbsCAM

Awards

Boston University / Best ECE Senior Design Project
May 2022

- Designed and manufactured PUCKFish, a low cost instrumentation package for lobster trappers
- Selected by a panel of alumni judges to be the project most ambitious in its goals and most successful in achieving them, while remaining user friendly and highly practical

Boston University / ECE Shark Tank Winner
October 2021

- Pitched PUCKFish to a panel of alumni judges which deliberated based upon the project's viability, marketability, and engineering success
- Won in competition against other ECE senior design projects