

Hanna Mitamura

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SKILLS

MATLAB, C, HTML/CSS, OpenFOAM, COMSOL, SolidWorks, CAD/GD&T
FTIR, GCMS, UV-Vis, NMR spectroscopy, HPLC, ICP-MS
English-Native, Mandarin Chinese-Conversational
Microsoft Office and Adobe suite

EDUCATION

MS Mechanical Engineering: Thermofluid Science and Energy **GPA 3.98/4.00**
Boston University College of Engineering, Boston, MA
Late Entry Accelerated Program (LEAP) Graduate Scholarship
May 2022

BA Chemistry with Honors, Anthropology Minor **GPA 3.71/4.00**
Vassar College, Poughkeepsie, NY
Sigma Xi Research Honor Society
May 2018

PROJECTS

CFD Simulation of Micronozzle Flow Spring 2022
Conducted OpenFOAM and COMSOL simulation of micronozzle flow
for use in vapor-based micro-propulsion systems

Continuous Feed Pipe Cutter Design Fall 2021
Designed a pipe-cutting machine, incorporated client feedback into
functional requirements, modeled custom parts using SolidWorks,
conducted Net Present Value/payback period assessment

Invention Notebook Fall 2021
Translated client needs into specific product concepts, researched
prior art, and drafted mock patents

Arduino-based Pulse Oximeter Fall 2020
Built Arduino-based pulse oximeter with MATLAB signal processing

MATLAB Truss Modeling Fall 2020
Coded a MATLAB program to calculate tensions experienced by
members in truss model, used to match calculations to observed
physical model

Intercollegiate Rocket Engineering Competition 2020 Fall 2020
BU Rocket Propulsion Group, Airframe team lead, material selection,
structural analysis, SolidWorks modeling/drawing (ASME Y14.5), and
cost assessment

EXPERIENCE

Graduate Student Teacher Mechanics I, Boston University Summer 2021
Supervised 14 undergraduate students in mini-truss design project

Research Assistant, Vassar College Department of Chemistry Spring 2017 –
Conducted research on polyanhydride synthesis, presented at the Spring 2018
American Chemical Society Undergraduate Research Symposium,
April 2018