

Aidan Beckett

Mechanical Engineer

EXPERIENCE

Volta Labs — *R&D Mechanical Engineer*

MARCH 2024 - PRESENT

- Designing and running thermal and fluidics tests to inform mechanical design and biological process decisions
- Prototyping and implementing hardware, electronics, and firmware improvements to the Callisto Sample Prep System
- Developing automated thermal calibration process for lab-grade instrument
- Debugging and root-cause analysis of electromechanical systems

Formlabs — *Hardware Test Engineer Intern*

SEPTEMBER 2023 - FEBRUARY 2024

- Independently designed, built, and programmed automated testing equipment to characterize and validate critical Form4 and Resin Cartridge V2 subsystems.
- Analyzed and synthesized data in test reports to effectively inform stakeholders.

Tufts University — *Research Assistant*

JUNE 2022 - DECEMBER 2022

- Assisted in preparing and running high temperature superconductor quench experiments.
- Developed a Finite Difference acoustic model in Matlab to compare to experimental data.
- Fabricated parts for use in quench tests.

Laborie Medical Technologies — *R&D Mechanical Engineering Intern*

MAY 2022 - AUGUST 2022

Vitae Industries — *Mechanical Design Intern*

JUNE 2021 - AUGUST 2021

Onshape — *Intern*

FEBRUARY 2020 - JUNE 2020

EDUCATION

Tufts University — *B.S. Mechanical Engineering*

SEPTEMBER 2019 - MAY 2023

GPA: 3.89

- Major in Mechanical Engineering with Minor in Human Factors Engineering
- Club Ice Hockey Captain
- Jazz Ensemble
- Pre-Orientation Leader

Portfolio:

aidanbeckett.com

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SKILLS

CAD, Technical Drawings, and Design for Manufacturing in Solidworks and Onshape

Programming in Python, Matlab, and C++

FEA and CFD in Solidworks and COMSOL

Rapid Prototyping; 3D printing, Silicone Molding, Milling, Lasercutting, Water Jetting

PID Control, Path Planning, Inverse Kinematics, State Machines, PCB Design

PROJECTS (See Portfolio for details)

Internal Structure of NASA Lifting Body

Autonomous Robot Dog

Redesigning Parts for Manufacturing

Cryogenic Acoustic Model for Superconductor Quench

Two Link Serial Arm

RELEVANT CLASSES

Robotics and Control Theory
Electromechanical Systems
Materials and Manufacturing
Thermal and Fluid Systems
Human Factors Engineering
Engineering Dynamics
Computing in Engineering

AWARDS

Summa Cum Laude

National Merit Scholar