

Lucian Sharpe

Mechanical Engineer | Build, Manufacturing, and Integrated Hardware Systems

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EDUCATION

Brown University – Providence, RI

Graduation: May 2024

Sc.B in Mechanical Engineering - GPA 3.7

EXPERIENCE & PROJECTS

Flux Marine – Bristol, RI

Jul. 2024 - Present

Mechanical Engineer: Mechanical Design, Propeller Development, System Integration, Build Engineering

- Developed in-house vacuum stator potting process for high-power electric motors, designing custom tooling and enabling internal prototype production
- Achieved ~80–90% fill rates supporting 500+ hour endurance testing and stable thermal performance
- Built and validated internal potting equipment; defined process parameters with resin suppliers and developed scale-up plan for automated production
- Led propeller development for 115HP electric outboard resulting in 13% efficiency gain, creating automated performance analysis tools for system and propeller efficiency across test runs
- Took ownership of drivetrain architecture (shafts, belt drive, bearings, prop shaft), redesigning load paths and assembly to improve torque capacity, reliability, and manufacturability
- Implemented drivetrain changes enabling ~18% increase in system power and reduced shaft-system cost by ~11%.
- Built first full landed-cost model of propulsion system and led cross-functional effort identifying \$11k per-unit (~10.2%) savings without new tooling
- Designed and launched corrosion and coating validation program including saltwater cycling and galvanic testing to evaluate production-ready coating systems

Off Campus LLC – Providence, RI

Dec. 2022 - May 2024

Co-Founder and CEO: Event Planning and Organization

- Set up and operated ticketed event business producing 200 - 800 person events, coordinating venues, vendors, and logistics
- Managed budgeting, contractors, and operational risk across events

Flux Marine – Bristol, RI

May - Aug. 2023

Summer Intern: Mechanical Design, Tiller Steering Project

- Developed and tested MVP of new tiller steering system for motors as demo for investors and future product
- Created technical drawings using GD&T and exploded views to document both process and design for future development

COAD Smart Pillbox Design – Providence, RI

Jun. - Dec. 2022

CAD Experience, Microcontrollers, Manufacturable Design, FDM-Printing

- Designed and prototyped a smart pillbox integrating mechanical enclosure design, PCB electronics, and embedded microcontroller system
- Programmed ATmega microcontroller (C++) and designed PCB layout supporting Wi-Fi data upload
- Reduced manufacturing complexity through iterative design and feature elimination

Brown University Investment Office – Providence, RI

Jun. - Aug. 2022

Summer Intern

- Researched and pitched possible new investments to the investment committee
- Challenged and eliminated inefficiencies in office workflows through use of OCR tools for data scraping

LEADERSHIP AND ENGAGEMENT

Brown University Sailing Team

Aug. 2021 - May 2024

Commodore, Member, Rear Commodore

- Leading team through practices and coordinating weekend events 30 hour per week during spring and fall season

TECHNICAL SKILLS

CAD: SolidWorks, Fusion 360, GD&T

Manufacturing / Hardware: Prototype builds, tooling design, DFMA, 3D printing, welding, laser cutting, sheet metal

Analysis / Testing: Endurance testing, thermal/process experimentation, cost modeling, tolerance/interference analysis

Programming / Electrical: MATLAB, C++, Python, Arduino, Altium, LTspice, CAN tools, Google Script, AI Integrations

See lucian-sharpe.com for more details and documentation of past work