# TIMOTHY STEPHENS

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## PROFILE

Experienced **Mechanical Engineer** with demonstrated history of work in Research and Development paired with a Minor in Computer Science. Skilled in Product Design, Software Development, Project Management, Data Analysis, and Heat Transfer. Proven history of adapting to largely independent roles using my robust mechanical engineering background and programming savoir faire.

## EDUCATION

**National Council of Examiners for Engineering and Surveying** | Engineer in Training (EIT) Certification | 2024

**Stevens Institute of Technology** | Hoboken, NJ | May 2023
Bachelor of Engineering (B.Eng.) in Mechanical Engineering | Minor Computer Science | GPA: 3.4

## SKILLS

**Hard Skills:** Autodesk, SolidWorks, Creo, AutoCAD, Revit, Python, Java, C++, Excel, PowerPoint, Teams, Zoom

## Portfolio

**Mobile Liquid Refrigeration Device**—*Independent Engineering Project*　　　　　　　　Spring 2025
- Designed a mobile liquid refrigeration device to locally cool large bodies of drinking water
- Drafted mechanical dimensions and performed heat transfer energy calculations using HVAC thermal engineering principles to confirm feasibility and material selection
- Assembled device using soldering, pipe cutting, electrical wiring and pumping refrigerant to test functionality

**Senior Design Capstone "BioCharge"** —*Engineering Design VIII*　　　　　　　　Spring 2023
- Developed a practical wearable biomechanical energy harvesting device capable of successfully converting walking motion into an iPhone battery charge
- Assembled components in SolidWorks and AutoCAD to evaluate and select optimal materials under various loads
- Redesigned prototypes using lean canvas to refine cost efficiency, manufacturing, and voice of customer for launch

## WORK EXPERIENCE

**Medtronic—Surgical Innovations Department**, Boulder, CO, *Product Engineering Intern*　　　June 2021-August 2021
- Created 3 training usage documents to improve electrosurgery patient outcome for over 100 million surgical procedures worldwide
- Tested existing biomedical products with R&D Department to develop 3 new design initiatives for pre-product development team
- Interviewed 10 surgeons and nurses in a double-blinded study to collect voice of customer data and incorporate direct feedback into future electrosurgery pen designs

**Maritime Security Center, DHS Center of Excellence,** Hoboken, NJ, *Research Intern*　　　June 2020-August 2020
- Developed Tableau-based Risk Management Software as part of a collaborative multidisciplinary team to include new maritime incident data sets and predictive-analytics capabilities for the US Coast Guard
- Analyzed 10 years of US Coast Guard incident data using Python to predict seasonality trends and better allocate 40,000+ active personnel
- Presented dashboard and research outcomes in formal presentation to US Coast Guard stakeholders which adopted dashboard and predictive analytics technology for field use

**Con Edison—AMI Project,** New York, NY, *Temporary Engineering Aide*　　　　　June 2019-August 2019
- Scripted a Data-Driven Algorithm to automatically identify and flag over 10,000 priority meter banks within ConEdison database for rapid allocation to technicians
- Supported Power Plant Operations by conducting Design Review Processes and acting as on-call duty responder
- Tracked New Business and Business as Usual Reports to evaluate energy meter remediation and power progress