**EDUCATION**

**Northeastern University, College of Engineering Boston, MA**

*Bachelor of Science in Mechanical Engineering* May 2019

**Activities:** Pi Delta Psi Fraternity Inc. (President), Society of Asian Scientists and Engineers

**WORK EXPERIENCE**

**NxStage Medical, Inc. Lawrence, Massachusetts**

*Disposables Engineering R&D Co-op*  July 2018 – December 2018

* Developed SolidWorks drawings and prototyped filter exchange system that minimized renal treatment interruptions
* Designed CAD drawings for a cover to prevent tube disconnections in medical products during product transportation
* Formulated multiple test procedures that measured hemodialysis machine thresholds for future design reconstruction
* Presented FDA product manufacturing validation to upper management to initiate medical device production
* Collaborated with manufacturers to revise designs to reflect feedback from molder for improved manufacturing
* Operated Drop/Shock/Vibration tests on medical devices to mimic transportation damages for product design review
* Conducted calibrations by aging product through a thermal management chamber for experiments

**YEH-TON Water Tech. Co., Ltd.**   **Kaohsiung City, Taiwan**

*Assistant Mechanical Engineering Intern* July 2017 – August 2017

* Drew CAD drawings of existing filtration systems for better equipment assembly, machining and installation layouts
* Utilized Lathe and Milling machines to assemble water pipes for filtration system installation at construction sites
* Modeled CAD text fixtures for filtration systems to administer safety checks prior to system installation
* Examined assembly and installation of filtration systems to ensure conformance to company design specification
* Prototyped a personal water filtration system using SoildWorks to filter out micro-minerals

**Massachusetts Bay Transportation Authority**  **Somerville, Massachusetts**

*Assistant Mechanical Engineering Intern* July 2016 – December 2016

* Investigated the maximum load threshold of a locomotive brake to create a cost analysis for future manufacturing
* Researched different material options for optimal load strength of different locomotive brakes through SolidWorks
* Assessed oil quality from locomotive diesel engines to meet company safety standards by conducting Oil analysis test
* Conducted daily safety check-up to disclose locomotive serviceability for the safety of Boston citizens

**YI-CHENG FREEZER & AIR-CONDITIONED EQUIPMENT CO. Ltd.**  **Taipei City, Taiwan**

*Mechanical Engineering Intern* June 2015 – August 2015

* Utilized Lathe and Milling machines to construct pipelines for air-conditioning systems at construction sites
* Conducted technical analysis of product components to ensure design requirements were met to FDA standards
* Operated industrial equipment to assist head engineers in more advanced refrigeration construction
* Gained workshop knowledge on construction work by shadowing head engineers

**SKILLS**

**Software:** SolidWorks (CSWA and CSWP certified), AutoCAD, MATLAB

**Machine Shop Experience:** Instron Machine, Milling Machines, Lathe Machines, Drill Presses

**Languages:** Fluent in English and Mandarin, Beginner in Thai

**Achievements:** Trekked to Everest Base Camp, Duke of Edinburgh Award, First-Aid Certification, Travelled to 14 countries

**Capstone Project**

**Circadian Shades**

* Used SolidWorks to draw out the required pieces to assemble a torsion spring inspired black out shade
* Performed FEA analysis through SolidWorks to find critical stress points for material evaluation
* Calculated maximum and minimum torque needed to overcome to lift the shades up for performance testing
* Utilized the Drill Press and Milling Machines to build the prototype
* Carried out light control and reliability testing to further improve the prototype for final design