

Yusheng (Jason) Zhang

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EDUCATION

Northeastern University, Boston, MA

Candidate for Bachelor and Masters of Science in Mechanical Engineering

GPA: 3.65

Expected May 2023

<u>Relevant Courses:</u>	Statics, Mechanics of Materials, Dynamics, Thermodynamics, System Analysis and Control, Finite Element Analysis, Fluid Mechanics, Heat Transfer, Gas Turbine Combustion
<u>Activities:</u>	Robotics Club Communications Lead, Beta Theta Pi Fraternity Member Development Chair, Formula Students Business Ambassador (NUin Ireland), Baja SAE, Club Running, Intramural Basketball, American Society of Mechanical Engineers
<u>Honors:</u>	Dean's List Spring 2019, Spring 2021

SKILLS

Computer Applications: SolidWorks (CSWA Certified), AutoCAD, MATLAB, Arduino

Measurement Devices: Instron, OGP SmartScope

Languages: Fluent in Mandarin and Cantonese, Intermediate in Spanish

RESEARCH EXPERIENCE

Vehicle Engineering and New Energy Resources, University of Notre Dame

January 2022

- Examined vehicle energy systems such as the internal-combustion engine using thermodynamics
 - Investigated renewable energy systems with a focus on electric vehicles
 - Researched battery swapping technology for electric vehicles by gathering and analyzing data
 - Presented findings of research on battery swapping technology with article entitled *Analysis of Battery Swapping Technology for Electric Vehicles – using NIO's Battery Swapping Technology as an Example*
 - Article was submitted for the 2022 International Conference on Science and Technology Ethics and Human Future
 - Article will be published in *Advances in Social Science, Education and Humanities Research* and will be submitted to CPCI-SSH for indexing
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WORK EXPERIENCE

Fresenius Medical Care (NxStage), Lawrence, MA

Systems Engineer

July – December 2021

- Determined algorithmic flow control variables for a dialysis system prototype
- Designed tests to obtain fluid pressure data with the end goal of minimizing system error
- Conducted investigations on a series of pressure sensor readings and studied its patterns using Excel and proprietary software in order to make improvements to the system
- Enhanced system performance by reducing 75% of the detectable error through redesigning the system calibration process based on analysis of pressure sensor readings
- Drafted testing procedures for new engineers incoming

Insulet Corporation, Acton, MA

Supplier Engineer

July – December 2020

- Designed and prototyped adjustable 3D-printed fixture for Pod-activation tool using SolidWorks
 - Performed various testing procedures using Instron; collected, graphed and analyzed data trends through Excel
 - Created and operated programs on the OGP SmartScope to measure Pod components
 - Drafted validation reports extrapolating information from suppliers
 - Analyzed, reviewed and approved supplier technical drawings, force testing data sets and manufacturing procedures
 - Performed Infusion Pressure Testing and created tutorial video explaining procedures for training purposes
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LEADERSHIP & VOLUNTEERING EXPERIENCE

Mission Hill Cleanups, Boston, MA

Community Service Event Organizer

January – December 2021

- Planned cleanups for local community and recruited volunteers
 - Directed and led volunteers during the events
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HOBBIES & INTERESTS

Love travelling, following politics, working out, swimming and running. Favorite movie: Inception with Leonardo DiCaprio