

# Michael J. Luchini

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## **EDUCATION**

**Boston University College of Engineering, Boston, MA** *September 2016 - May 2020*  
Bachelor of Science in Mechanical Engineering, Manufacturing Concentration

## **PROFESSIONAL AND LEADERSHIP ACHIEVEMENTS**

**Medtronic; North Haven, CT** *December 2020 – Present*  
*Test Engineer*

- Executed complex electromechanical testing on surgical robotics systems including performance testing using a Coordinate Measuring Machine (CMM) and Universal Robot (UR5).
- Performed Test Method Development, Test Method Validation and risk management decisions for verification of system requirements.
- Executed statistical analysis including gage R&R, ANOVA, tolerance intervals, and normality testing using Minitab.
- Designed and validated parts using Creo Parametric.
- Authored engineering reports and Test Methods.
- Fluent in Agile Product Development methodology for integrated medical device development.

**Insulet Corporation; Acton, MA** *July 2020 – December 2020*  
*Manufacturing Engineering Co-op*

- Developed and validated parameters for manufacturing equipment while leading research and design project for new manufacturing line.
- Designed end of arm tooling using SolidWorks.
- Performed root cause analysis in order to identify and correct causes of rejected parts and machine faults.
- Executed Test Method Validation, Process Change Orders, and various work orders in order to maintain and improve plant processes.
- Led team of quality technicians to perform hourly inspections, First Article Inspections, and escalate nonconformances.

**InnovaSurgical; Branford, CT** *May 2019 - September 2019*  
*Project Leader*

- Lead research and design of a project pertaining to medical devices and their application in the operating room
- Researched how medical devices are implemented for various orthopedic and arthroscopic surgeries in operating rooms at multiple locations
- Coordinated with medical device vendors and collaborated with product developers
- Developed a final working concept to be outsourced for manufacturing

**Boston University College of Engineering; Boston, MA** *September 2018 - December 2018*  
*Laboratory Assistant*

- Provided classroom support
- Advised students on material selection and use of resources
- Coordinated orders of materials for engineering design projects

## **DESIGN PROJECTS COMPLETED**

“DaVinci Robot Haptic Feedback Gloves”

- Collaborated with a team of engineering students to design a soft-robotic bracelet which provides haptic feedback to surgeons when operating the Intuitive Da Vinci surgical robot.
- Produced a prototype using pneumatic actuators which receive signals from a pressure sensor

“2 Degree-of-Freedom Robotic Arm”

- Designed, 3D printed, and programmed a robotic arm using Fusion 360, Matlab Simulink, and Arduino Uno

“3D Printed Face Shields”

- 3D printed and assembled over 300 medical face shields to be donated to Yale New Haven Hospital and various first responder organizations such as the Branford Fire Department and AMR New Haven

## **SKILLS**

Additive Manufacturing, Creo Parametric, DFMEA, Matlab, Minitab, Root Cause Analysis, SolidWorks, Six Sigma