# Lauren A. Seitz

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## EDUCATION

**University of Rochester – Center for Medical Technology & Innovation**
M.S.in Biomedical Engineering, May 2017

**Syracuse University – College of Engineering**
B.S. in Bioengineering, May 2016
Minor in Engineering Management
GPA: 3.53/4.00

## SKILLS

CAD (SolidWorks and Autodesk Inventor), MATLAB, COMSOL Multiphysics Finite Element Analysis, LabVIEW, Multisim, Mimics, Geomagic, Volume Graphics (VG)Studio Max, ImageJ

## ENGINEERING EXPERIENCE

**Electronics Production Intern** *May 2016 – June 2016*
*EMCom Inc.* *Auburn, NY*

- Designed a procedure for improving product identification and worker compliance
- Converted the company into a new, more efficient software that fit their needs

**Research Assistant** *December 2015 – May 2016*
*SUNY Upstate Medical University* *Syracuse, NY*

- Evaluated the effect of retroversion angles on range of motion after total shoulder replacement surgery through the use of cadaver testing
- Determined the best methods and procedures for the experiments through extensive literature review

**Research Experience for Undergraduates** *June 2014 – August 2014*
*North Carolina Agricultural & Technical State University* *Greensboro, NC*

- Investigated the biomechanical effects of radiation and microgravity on knee joints for a NASA funded study
- Completed CT scans of rat knees, then collected and analyzed data from the scans
- Developed a method for systematic data collection to be used by the university
- Presented poster and PowerPoint at the end of the program

## ENGINEERING APPLICATIONS

**Senior Capstone Design**

- Converted CT scans into SolidWorks files using Mimics and Geomagic
- Developed a process to determine the optimal bone cuts for implantation of the humeral component of a total shoulder implant utilizing SolidWorks
- Collaborated with others to create a surgical cutting guide that can make the determined optimal cut
- Presented poster at the 42nd Annual Northeast Bioengineering Conference

**Analog Circuits Radar Project**

- Designed multiple versions of an IF amplifier in Multisim based given specifications
- Connected the best design with other students' components to create a k-band traffic radar

**MATLAB Project**

- Created a MATLAB simulation that actively searches for open spaces on a chessboard to place pieces in a configuration that keeps the pieces from being under attack

## LEADERSHIP EXPERIENCE

**Academic Excellence Workshop Facilitator** *August 2013 – May 2016*

- Lead a group of 5-8 undergraduate students in engineering based material
- Assist the students in creating a better understanding of the material being covered in their class
- Improve the participants' problem-solving, interpersonal, and teamwork skills

**Teaching Assistant** *January 2015 – May 2015*

- Facilitate students' understanding of statics principles
- Troubleshoot students' entered code for a professor-created computer software