

# CLAIRE APUAN

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📍 Denver, CO

## EDUCATION

### Thayer School of Engineering at Dartmouth College

Hanover, NH  
June 2019

### Bachelor of Engineering, concentrating in Biomedical Engineering, GPA 3.47/4.0

- Major Coursework: Biomechanics, Intermediate Biomedical Engineering, Biological Physics, Medical Diagnostics and Monitoring
- Observation of Partial Knee Arthroplasty at DHMC

### Dartmouth College

Hanover, NH  
November 2018

### Bachelor of Arts in Engineering Sciences

- Major Coursework: Systems, Solid Mechanics, Numerical Analysis, Differential Equations, Linear Algebra, Calculus III, Digital Electronics, Foundations of Mathematics in Computer Science, Cell Structure and Function

## PROJECTS

### Thayer School of Engineering

Hanover, NH  
March - June 2019

### Development of MR-Guided Robotically-actuated C1-C2 Fusion, *Robotics Lead*

- Collaborated with DHMC Department of Orthopaedics Chair and 3-person team
- Quantified design specifications and requirements for a robotic translation system
- Prototyped a robotic translation system with 6 DOF to actuate a pneumatic surgical drill using MATLAB and Failure Mode and Effects Analysis (FMEA)

### Thayer School of Engineering

Hanover, NH  
September 2017 - January 2019

### Rethinking Solutions to Erectile Dysfunction with Coloplast, *Biomedical Engineer*

- Defined problem statement by identifying need and space for innovation
- Developed works-like and looks-like prototypes
- Designed testing protocol to compare state of the art and our design
- Improved upon current models with 90% decrease in inflation time
- Ensured quality of written reports and presentations

### Wegst Biomimetics Lab

Hanover, NH  
March - June 2017

### Investigation of Feasibility of Thermally Cross-linking Chitosan, *Research Assistant*

- Researched preparation methods of Chitosan tissue scaffolds for biomedical applications
- Analyzed autoclave as a method for thermally-crosslinking Chitosan
- Skills used: biomaterial analysis, mechanical testing, SEM, autoclave, NMR spectrometry

## HONORS

### Journal of Sexual Medicine

Miami, FL  
November 2018

### Sexual Medicine Society of North America's (SMSNA) 19th Annual Meet-up, *Speaker*

- Presented as the lead author on my team's solution to erectile dysfunction

### Thayer School of Engineering

Hanover, NH  
June 2018

### Brieanna S. Weinstein Engineering Design Prize, *Award Recipient*

- Recognized my team for demonstrating outstanding design skill to address the needs and challenges of people with physical disabilities

### Society of Women Engineers

October 2017, 2018

### World's Largest Conference for Women Engineers, *Dartmouth Representative*

## LEADERSHIP

### Society of Women Engineers

Hanover, NH  
January 2015 - June 2019

### Founding Member, *(Former President 2018, Vice President 2017, Secretary 2016)*

- Reinstated the Dartmouth chapter after a 16 year hiatus
- Led alumni panels, study groups, small projects, and networking events

### Dartmouth Outing Club

Hanover, NH  
September 2014 - June 2019

### Mountaineering Club Leader, *(Former First-Year Trips Directorate Staff 2017, Chair 2017)*

- Managed risk, group dynamics, and logistics for domestic & international climbing trips
- Updated safety standards in accordance with the American Mountain Guides Association

## SKILLS

**Expert:** SolidWorks, Design Verification, Specifications & Requirements, MATLAB, Mathematica, Microsoft Office Suite

**Intermediate:** Design Validation, Python, FPGA/VHDL

**Interests:** New medical device development, Rock climbing, Aerial silks, Baking