

OBJECTIVE

To obtain a position in R&D that utilizes my technical skills, research experience, and creativity to better prepare myself for a future career in advanced product development

EDUCATION

B.S. Mechanical Engineering, University of Colorado at Boulder
GPA 3.596/4.0
Engineering Honors Program

Anticipated Graduation Spring 2019

TECHNICAL SKILLS

Laboratory

- Polymer Synthesis, Basic Lab Maintenance and Compressed Gases, Spin Coating

Fabrication

- Laser Cutting, Rapid Prototyping, Milling, Pour Casting

Software

- MATLAB, Mathematica, SolidWorks, Adobe Photoshop and Illustrator, Engineering Equation Solver

RELEVANT EXPERIENCE

Toyota Motor North America R&D Internship (Ann Arbor, MI)

May 2018 – June 2018

- Fabricated soft robotic actuators and programmable surfaces for interior and exterior concept applications
- Learned Toyota Business Practices, the Toyota Way, and the Toyota Production System

Undergraduate Researcher (Boulder, CO), Keplinger Research Group

Jan. 2016 – Present

- **Leading** ongoing project to combine artificial muscle actuators with existing hand prosthetic for comparison to current prosthetic models
- Co-wrote published *Science* article "Hydraulically amplified self-healing electrostatic actuators with muscle-like performance".
- Continuing research toward creating biocompatible, electrically controlled, artificial muscle actuators and sensors for soft robots
- Created a repeatable fabrication process for actuators that effectively decreases manufacturing time for a variety of elastomers, stretchable conductors, and dielectric materials
- Determined dynamic actuator performance by using a high voltage amplifier

LEADERSHIP

- **Teaching Assistant, GEEN 1400 – Freshmen Projects**

Aug. 2017 – Dec. 2017

Guided freshmen engineers through idea formation and execution, helped with manufacturing processes, graded projects, reports, and presentations

- **Student Representative, ME Undergraduate Student Affairs Committee**

Aug. 2016 – May 2017

One of three student representatives serving as representatives to the Biomedical Engineering Society

- **Student Representative, ME Student Advisory Board**

Aug. 2017 – Present

Contributed to department guidance on curriculum, programming, and funding

PUBLICATIONS

Eric Acome, Shane K. Mitchell, Timothy G. Morrissey, Madison B. Emmett, Claire Benjamin, Madeline King, Miles Radakovitz, Christoph Keplinger. "Hydraulically amplified self-healing electrostatic actuators with muscle-like performance". *Science* 359 (6371), 61-65 (2018).

PATENTS

Christoph Keplinger, Eric L. Acome, Nicholas A. Kellaris, Shane K. Mitchell, Madison B. Emmett. "**Hydraulically Amplified Self-Healing ELECTROSTATIC (HASSEL) Transducers**", Provisional Patent Application (62/474,814).

AWARDS

Summer Individual Grant, Undergraduate Research Opportunities Program

May 2016 – Aug. 2016

May 2017 – Aug. 2017

Academic Year Individual Grant, Undergraduate Research Opportunities Program

Nov. 2016 – April 2017

Sept. 2017 – April 2017

ME Undergraduate Student of the Month, Mechanical Engineering Department

Sept. 2016