

# MICHAEL SAKAUE

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Mechanical Engineering student seeking biomechanical engineering opportunities related to stem cell research and prosthetics design. I am available immediately.

## EDUCATION

May 2020 (Anticipated)      Bachelor of Science, Mechanical Engineering  
Northern Arizona University

## COURSES TAKEN

Coursework completed in Statics, Dynamics, Material Science, Mechanics of Materials, Machine Design, Fluid Dynamics, and Thermodynamics.

## COMPUTER SKILLS

MATLAB, CAD, Microsoft Word and Excel

## PROJECTS

**Rube-Goldberg Balloon Popper:** Designed a Rube-Goldberg device that utilized a bicycle, books, water balloon, dominoes, frisbees, car, paper, paper towel roll, and a thumb tack. The objective of the device was to pop a balloon.

**Campus Improvement Project:** My group was tasked to come up with an improvement to the NAU Flagstaff campus. After brainstorming, we decided that more parking would benefit the majority of commuting students. We then constructed a scale model of the parking structure.

**Ball Cannon:** Designed a cannon that could launch a ping-pong ball into a target between 1 and 3 meters away. Used a 3D printer to manufacture some of the parts.

**Engineering Rescue D4P Design:** Designed a system to rescue a trapped dog from a well using only materials supplied. Demonstrated the system for W.L. Gore engineers.

**Power Screw Design:** Designed a power screw to be used in a power-driven jack, given a maximum load and an efficiency. An Excel spreadsheet was used to assist in the design. Material selection, length and diameter of the power screw were calculated, taking buckling into consideration.

## VOLUNTEER EXPERIENCE

- Feed My Starving Children, Phoenix, AZ: Package food to be shipped to third-world countries.
- Member of Talk About Curing Autism (TACA) Club: Learned about children with autism and how to support them. Spread autism awareness. Planned and advertised fundraisers and donated funds to parent TACA organization.