Brandon Knutson

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EDUCATION

Northern Arizona University B.S. of Mechanical Engineering Flagstaff, AZ 2020 - Present

- Spring 2024 Graduate
- President of ASME
- Undergraduate Researcher

Relevant Courses

<u>Heat Transfer</u>: Excelled in my course work ending the class with an 93% and accruing similar grades on our numerical 2D heat transfer and south campus heat exchanger redesign projects and reports.

<u>ASME President</u>: Collaborated with faculty and club leaders to organize our yearly Escape Room event, last year drawing an attendance of over 800 visitors. We anticipate over 1000 attendees this year using our reputation, better advertisement and more experienced team leads to make a better event.

Organized weekly meetings that rotate between informational, skill development and social. To build a strong organization and enrich our members to truly set the ASME standard.

<u>Numerical Modeling of Snow Creep</u>: Investigating previous literature into the fluid properties of snow against and embankment and aiming to understand the unconventional pressure properties found.

EXPERIENCE

PALATOV MOTORSPORT

FSAE Team Lead

Summer 2022

Guided a small team of enthusiastic engineers as we designed a Formula SAE track car. Navigated interpersonal conflicts and iteratively redesign components to withstand operational loads and follow FSAE regulations. Combed over automotive design textbooks to better understand optimal suspension geometry and weight displacement for the competition.

SKILLS

<u>Numerical and Physical Modeling</u>: Able to simulate dynamic and nonlinear systems using MATLAB functions and its internal program Simulink to visualize systems in real time. Experienced in using Buckingham Pi Theorem to create dimensionless groups allowing for the creation of physical models much cheaper than their equivalent prototypes.

<u>Public Speaking</u>: Spent a year in high school researching, writing, practicing, and performing weekly speeches ranging in length from five to fifteen minutes rotating between the persuasion methods of Ethos, Pathos and Logos. Depending on the intended audience and subject matter.

<u>Psychology and Sociology</u>: Took an introductory class on Psychology and sociology and continued to develop my knowledge by reading books like "The Five Dysfunctions of a Team" and "48 Laws of Power" to better understand both Team and Individual conflicts.

INTERESTS

Bushcraft and Working Out: Both have taught me resilience and problem solving. I have developed more confidence in myself and my skills, and a greater appreciation for my body and nature because of them.

Art (Painting): I deeply enjoy learning about the history and artist behind the art. John Martin enthusiast.

Anti-Philosopher: Anyone with a unwavering world frame suffers from trauma and tying to is coping with it.