
Braulio Gonzalez

brauliogonzalez898@gmail.com / (520)488-4690 / Vail, AZ 86001

Summary

Diligent College Student focused on Mechanical Engineering and dedication to prompt project completion and continual adaptation. Team-oriented collaborator with reliability and focus on equitable task distribution through group projects and motivation to accomplish mutually held goals.

Education and Training

Northern Arizona University (NAU) Flagstaff AZ

Fall 2021 – Current (Expected in 05/2025)

Bachelor of Science: Mechanical Engineering 3.82 GPA

Experience

Sundt Welding Robot –CAD, Manufacturing, Electrical Engineer

08/2024 – Current Flagstaff, Arizona

- Designed and implemented a high-precision LiDAR sensor system for weld mapping with optimized data collection algorithms.
- Led electrical system design, including motor control algorithms for robotic movement and welding operations.
- Programmed automation code for welding tasks, motor control, and sensor integration.
- Built the project website to showcase progress, documentation, and outcomes.
- Led iterative design and development of the robotic arm for improved performance and reliability.
- Managed the complete electrical system, including component selection, wiring, and safety implementation.
- Manufactured custom-fabricated parts using the lathe and vertical mill.

Haptic Rehabilitation Robotics Intern (NAU I2S) – Undergrad Intern

01/2024 – 12/2024 Flagstaff, Arizona

- Design of a robotic variation for upper-arm stroke rehabilitation with integrated haptic feedback.
- Created detailed CAD models using SolidWorks and manufactured custom omni-wheels to enhance robot mobility.
- Revised and refined designs to meet performance and manufacturability requirements.

Skills

- Additive manufacturing/ 3D Printing
 - SolidWorks
 - MATLAB
 - Python
 - C++
 - html
 - Communicative
 - Highly Motivated
 - Project Management
-

Awards and Recognition

- NAU Masters Acceleration Program
- Dean's List Fall 2024
- Lumberjack Scholars Award Recipient
- Earn to Learn Scholarship Recipient

Extracurriculars and Organizations

- ASME Member, 2021 – 2025
- ASME Escape Room 2024
- NAU Rocket Club Member, 2023
- NAU Robotic Club Member, 2024
- Member of Tau Beta Pi, 2024

- Write a written report or presentation on design requirements, including motor/controller sizing and manufacturing processes.

Rey's Construction - Handyman Assistant

06/2020 - 07/2024

Tucson, AZ

- Cleaning and maintaining tools and equipment used for projects.
- Inspecting homes for potential safety hazards like loose railings or steps.
- Provided prospective customers with professional quotes detailing handyman jobs' materials, labor, and customization expenses.

Built a reputation for excellent handyman services by taking pride in craftsmanship and attention to detail.

SolidWorks Project ME 365 - Owner/Creator

11/2023 - 12/2023

Flagstaff, Arizona

- Develop a novel 3D Printed Planetary Gearbox beyond the core curriculum to further explore and grow my technical experience.
- Collaborated with the instructor, seeking guidance and incorporating feedback to enhance quality.

Sodexo USA - Back Line Cook

08/2021 - 12/2024

Flagstaff, Arizona

- Mentored and trained staff by teaching cooking skills and kitchen maintenance, improving overall quality and performance.
- Maintained safe operations of food prep equipment to reduce complications and retain safety procedures.
- Practiced safe food handling techniques while prepping ingredients.
- Communicated effectively with fellow cooks about menu items being prepared.

-

References

References are available upon request.