

Gray Becker

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SUMMARY OF QUALIFICATIONS

- SolidWorks, MATLAB, Excel, Word, PowerPoint, OneNote, Teams, Inkscape, Canva
 - Soldering, motion capture, augmented reality, machine shop basic and mill training
 - Communication, leadership, teamwork, time management, academic writing
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EDUCATION

Northern Arizona University, Flagstaff, Arizona

BS, Mechanical Engineering - Degree expected May 2025

MS, Mechanical Engineering - Degree expected May 2026

- Lumberjack Scholarship, Dean's List, 3.94 GPA
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ENGINEERING EXPERIENCE

NAU Climate Solutions Engineering Lab, Flagstaff, Arizona

May 2024 - Present

- Operated thermogravimetric analysis and differential scanning calorimetry equipment to compare different carbon capture sorbents in moisture swing and water sorption tests

NAU Bioengineering Devices Lab, Flagstaff, Arizona

Oct. 2022 - Present

- Worked with and cleaned 3D printed polymer blood vessel models with mechanical properties that matched physiological tissue
- Developing a robot to remotely translate and rotate a catheter and detect forces exerted on blood vessel models for delivering stroke treatment devices

NAU American Society of Mechanical Engineers

Aug. 2021 - Present

- Worked on design layout and puzzles for Murder Mystery (May 2022) and Medieval Dungeon (Feb. 2024) escape rooms including a clock circuit and an Iron Maiden
- Completed timed engineering challenges including building catapults, autonomous cars, and structurally stable towers

NAU Raz Lab, Flagstaff, Arizona

Mar. 2023 - Dec. 2024

- Helped set up lab, motion capture system, and future NAU Robotics Club
- Designed an Augmented Reality lower-arm prosthesis

NAU Biomechatronics Lab, Flagstaff, Arizona

Aug. 2021 - Jan. 2023

- Assisted with motion capture, soldering, part assembly, terrain detection research, experiments, data collection, and Arduino programming to detect gait cycle state changes

Translational Genomics Research Institute, Phoenix, Arizona

Jun. 2019

- Participated in the TGen Bioscience Leadership Academy, learned laboratory skills such as pipetting and gel electrophoresis, presented on Acute Flaccid Myelitis
 - Shadowed an individual in Alzheimer's research and data science
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ADDITIONAL EXPERIENCE

NAU People Respecting Identities and Sexual Minorities

Aug. 2021 - Present

- Organized officer and club meetings, took meeting minutes, sent emails to members
- Coordinated volunteers for 20th anniversary celebration event
- Provided support for LGBTQIA+ individuals, awareness of different pronouns and gender identities, and outreach to Gender-Inclusive Housing communities

Community Assistant

Aug. 2022 - May 2023

- Responded to and reported incidents and crises related to conduct and mental health
 - Organized events on drug and alcohol awareness, social justice, safety, mental health, wellness, and making connections
 - Planned social activities including crafts, drawing, and painting
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PUBLICATIONS/CONFERENCES

Center for Negative Carbon Emissions Symposium, Phoenix, Arizona

Aug. 2024

- Earned 3rd place in poster session, presented poster on moisture swing comparison of IRA900, Fumasep, Net Crosslinked 6-Carbon, and Lewatit

Society of Neurointerventional Surgery (SNIS), San Diego, California

Jul. 2023

- Attended lectures and discussed ischemic and hemorrhagic stroke with clinicians
- Contributed to the abstract "Quantifying endovascular catheter push/pull forces and energies within animal vessels for comparison to silicone neurovascular models with identical tortuosity" ([see abstract](#))