

# Anna Fuling Mellin

(505) 235-5946 | afm243@nau.edu | www.linkedin.com/in/mellinanna

## SUMMARY OF QUALIFICATIONS

---

**Technical Skills:** Strong background in 3-D Printer operation, SolidWorks, Matlab (including data analysis), ANSYS Workbench, Microsoft Office, Wind Tunnel Operation, Machine Shop Certified - Mill, Lathe, CNC (NAU, 2023), Rheometer

**Communication Skills:** Intercultural and interdisciplinary communication, Public speaking and presentation, Technical writing and editing, Teaching diverse audiences, Customer relations and service

**Languages:** English (Native), Spanish (B2 on CEFR scale)

## EDUCATION

---

### Northern Arizona University

Flagstaff, AZ

*Bachelor of Science, Mechanical Engineering; Bachelor of Arts, Modern Languages*

*Expected Graduation: May 2025*

*Spanish Interdisciplinary Global Program Emphasis*

- GPA: 3.98, Honors College, Dean's List: Fall 2020 – Fall 2024
- **Clubs:** **Bioengineering Club Vice President** (Spring 2023); **NAU Competitive Climbing Club** (Fall 2022 – Present); **American Society of Mechanical Engineers** (Spring 2021 – Present); **Society of Women Engineers** (Spring 2021 – Present); **NAU Women's Club Soccer** (Fall 2021 – Spring 2022); **Lumberjack EMS** (Fall 2020 – Spring 2021)
- **Awards:** **Tormey Scholarship**, **NAU National Scholars Award**, **National Merit Finalist tuition scholarship**, **National Merit Finalist** (2020)
- **Study Abroad:** **Universidad de Jaén**, (Fall 2023 – Spring 2024) Jaén, Spain; **Universidad Fidélitas**, (Summer 2022), San José, Costa Rica

## RESEARCH EXPERIENCE

---

**Aneurysm Rupture** | *Senior Thesis Researcher - Team Lead* | Flagstaff, AZ

August 2024 – Present

- Design and develop silicone models of cerebral aneurysms to study rupture behavior
- Utilize lost-wax technique, 3D resin printing (ABS-like, water-soluble resin, Elastico Clear), 184 Sylgard Silicone, SolidWorks, CFD simulation, LabVIEW, Ansys Workbench, SimVascular
- Manage team operations, delegate tasks, oversee outreach, and maintain an organized workflow to ensure deadlines are met

**Fluids Lab UJA** | *Intern* (Conducted in Spanish) | Jaén, Spain

February 2024 – June 2024

- Completed 552 hours of hands-on design, research, and testing of semi-truck aerodynamic optimization
- Utilized SolidWorks, FEA, Ultimaker S5 3D printer (Filaflex, PETG, ABS filaments), MATLAB (data analysis and visualization of airflow measurements), and Wind Tunnel testing

**Experimental Biofluids Lab NAU** | *Intern* | Flagstaff, AZ

August 2022 – May 2023

- Participated in the Interns-2-Scholars program (12 hours per week), and presented at the NAU Undergraduate Symposium
- Conducted comprehensive literature reviews to inform the design and development of a silicone vaso-model of the human aorta
- Implemented a strategy to convert image scans from the Vascular Model Repository to STL format using SimVascular
- Designed a rotating drying stand and tested silicone coating techniques for optimal coverage.
- Utilized 3D printing (PVA, ABS), 184 Sylgard Silicone, SimVascular, and SolidWorks
- **Awards:** Jean Shuler Research Mini-Grant (October 2022), Pheatt Family Research and Design Award (May 2023)

**Bioengineering Devices Lab NAU** | *Observer* | Flagstaff, AZ

August 2021 – December 2021

- Gained hands-on experience operating lab machinery, testing procedures, and research projects, while attending lab meetings and presentations.
- Assisted with glass instrument sanitization and maintaining lab cleanliness (2-3 hours per week)

## WORK EXPERIENCE

---

**Lowell Observatory** | *Volunteer Telescope Operator* | Flagstaff, AZ

February 2025 - Present

- Involves operating various telescopes, answering questions, maintaining orderly, educational, and welcoming environments for audiences of all ages (10 hours per month)

**Ihatov Bread and Coffee** | *Barista* | Albuquerque, NM

May 2021 – August 2024

- Prepared food and beverages, managed financial transactions, trained new baristas, maintained store cleanliness, and fostered a calm, friendly work environment during peak business hours (up to 35 hours per week)

**CEALM UJA** | *Conversation Assistant* | Jaén, Spain

November 2023 – December 2023

- Provided English instruction and language skill development at the Center for Advanced Studies in Modern Languages (CEALM) with the University of Jaén for students at A2-B2 levels in the Common European Framework of Reference (4 hours per week)

**Department of Chemistry and Biochemistry NAU** | *Teacher's Assistant* | Flagstaff, AZ

August 2021 – May 2022

- Assisted in the instruction of Introductory Chemistry and held individual office hours (4 hours per week)