Mayar Elamin

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OBJECTIVE

Aerospace engineering graduate, with hands-on experience in design, flight testing, operations, MATLAB, leadership, and multidisciplinary team projects. Seeking a full-time role.

EDUCATION

Iowa State University **Graduated: Dec 2025**
Bachelor of Science, Aerospace Engineering (Cum Laude) Cumulative GPA: 3.6

SKILLS

- **Software**: CAD | Ansys APDL | MATLAB | Microsoft Office | Google Suite | LaTeX | MotoCalc | CFD
- **Languages:** Arabic | English

ACADEMIC PROJECTS

Senior Capstone Project - RC Aircraft Design **Jan 2025 – Dec 2025**

- Collaborated on design and modeling of an RC aircraft with a hot-swappable payload mechanism.
- Led components design (fuselage, wings, empennage, landing gear) using SolidWorks, performing iterations to meet aerodynamic and structural performance goals.
- Researched and selected manufacturing methods and materials to optimize performance, cost, and design constraints.
- Managed team budget, inventory, and procurement; manufactured aircraft components, maintained tolerances, and assembled wiring systems.
- Coordinated flight test operations and schedules, and contributed to post-test data analysis.

SAE Formula **Jan 2025 – Dec 2025**

- Manufactured aerodynamic components for CR-28 and EV CR-30 using carbon fiber layups ensuring structural integrity and surface finish.
- Managed material preparation by measuring and cutting carbon fiber, peel ply, breather cloth, and vacuum bags.
- Contributed to the aero kit design for the EV CR-30 by learning and running CFD simulations on side wings and supporting integration into the overall vehicle design.

High Altitude Balloon Experiments in Technology Project **Nov 2024 – Dec 2024**

- Collaborated with the Iowa State University HABET team to design and execute a data collection experiment utilizing the Adafruit CLUE board.
- Programmed the CLUE board in Arduino IDE to investigate sound propagation as a function of altitude.

Aerodynamic Shape Optimization Research **Jun 2024 – Aug 2024**

- Conducted Multidisciplinary Design Optimization (MDO) of aircraft structures, focusing on airfoils and overall wing design.
- Applied Machine Learning and Reduced-Order Modeling using the SMT toolbox.

AIAA Design Build Fly (DBF) Operations Team Lead – Make To Innovate (M:2:I) **Jan 2024 – May 2024**

- Oversaw smooth team operations and ensured compliance, organize design and manufacturing processes to meet deadlines.
- Assisted in technical report documentation and ensured project goals met competition requirements.
- Planned and executed flight test days, including checklists and coordination.

WORK EXPERIENCE

Arabic Teacher | Smarty Pals Online School - Remote **Jun 2020 – Jul 2023**

- Developed and delivered lesson plans for around 60 students, developing communication and adaptability skills.
- Provided feedback, addressed concerns, and supported individual learning needs.

Warda Home Business Owner | Florist - Rockford, IL **Sept 2020 – Jan 2023**

- Provided excellent customer service to determine the type of arrangement desired for different occasions.
- Managed employee tasks and inventory.
- Achieved an annual profit ranging from $27,000 to $30,000.

Jewelry Sales Associate | Banter by Piercing Pagoda - Rockford, IL **Aug 2021 – Aug 2022**

- Provided personalized jewelry advice and performed safe piercings for clients of all ages, ensuring a positive and personalized experience.
- Organized and managed weekly inventory.

HONORS AND ACHIEVEMENTS

- Dean's List at Iowa State University (> 3.25 GPA) **Dec 2023 – May 2025**
- Tau Sigma Honors Society **Feb 2024**
- President's and Dean's List at Rock Valley College (4.0 GPA; > 3.25 GPA) **May 2019, May 2020**
- Dassault Systemes Certificate for mechanical design at Associate level **Dec 2019**

ACADEMIC AND PROFESSIONAL INVOLVEMENT

Tau Sigma: Transfer Honor Society | **NSBE:** National Society of Black Engineers | **AIAA:** American Institute of Aeronautics and Astronautics | **SAE Formula:** Aero Subsystem | **WiSE**: Women in Science and Engineering