

Natalia Figueroa

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EDUCATION

- May 2028 University Of Illinois Chicago** Chicago, IL
 • Major: Mechanical Engineering, GPA: 3.78/4.00
- May 2026 College of DuPage (Graduated)** Glen Ellyn, IL
 • Associate in Engineering Science, GPA 3.94/4.00

SKILLS

Technical Skills: Python, CAD, SolidWorks, Arduino, FMEA, Experimental Testing

Data & Research: Data Analysis, Data Visualization, Leadership, Public Speaking

PROFESSIONAL RESEARCH EXPERIENCE

- May 2025 Observational Cosmology Laboratory (Full-Time)** Urbana, IL
- Aug 2026 Mechanical Engineering Researcher | NASA-Funded TIM Telescope
- Developed a helium boil-off analysis framework for the TIM cryostat to quantify liquid-helium consumption during He-10 refrigerator cycles and baseline cryogenic operation.
 - Built a comprehensive He-10 refrigerator cycle catalog by integrating data from multiple sources, documenting cycle start/end times, pump heating and cooldown periods, system behavior, and abnormalities.
 - Developed Python-based data-processing and visualization tools to convert raw cryogenic sensor data into helium level, volume, boil-off rate, and cycle-performance metrics.
 - Evaluated the effect of refrigerator cycling on the 4 K liquid-helium bath, supporting assessment of cryostat performance and expected cryogenic lifetime.

ENGINEERING EXPERIENCE

- Jun 2023- Ewert Energy Systems, Inc (Full-Time)** Carol Stream, IL
Aug 2026 Engineering Research And Development Associate
- Designed and executed laboratory simulations and field tests for electric-vehicle battery management systems, validating product functionality and supporting stable firmware releases and customer deployments.
 - Supported debugging, verification, and root-cause analysis of hardware and firmware issues during R&D, product validation, and field testing.
 - Contributed to electrical schematics, engineering documentation, and cross-functional product-development efforts supporting 10+ technical product manuals and product platforms.
- 2025- TINY CLUES SCIENCE (Part-Time)** Glendale Heights, IL
Present Founder & Operations Lead
- Manage materials, inventory, purchasing, scheduling, transportation, costs, safety, and event execution for Tiny Clues Science, a STEM outreach business providing hands-on science experiences for children. Develop and improve interactive experiments and educational programs while coordinating customer demand and operational requirements. Generated \$5,000+ in revenue within the first six months of operation.