

AMEERA ELGONEMY

EDUCATION

CORNELL UNIVERSITY

College of Engineering

BSc. in Mechanical Engineering (Class of 2023)

Minor in Aerospace Engineering

GPA: 3.72, Dean's List Fall 2019 and 2020

Courses taken to-date: Mechatronics; Mechanics of Engineering Materials; Python; Fluid Mechanics; Thermodynamics; Statics; Dynamics; and Sustainable Engineering of Energy.

RESEARCH & EXTRACURRICULAR EXPERIENCE

Cornell Mars Rover (CMR) Astrotech Sub-team Member

May 2021-Present

Design and manufacture the mechanical on-rover system that will autonomously perform life-detection tests on the rock and soil samples. Work with CAD programs, ANSYS, and manufacture parts in machine shops on campus.

Modeling Habitable Exoplanets Discovered by TESS and Kepler Telescopes Cornell University, Undergraduate Researcher

Aug 2020-Present

Use Microsoft Excel to analyze thousands of exoplanets discovered by the TESS and Kepler space telescopes to determine and model the exoplanets that fall into their respective Sun System's Habitable Zone.

LEADERSHIP & PROFESSIONAL EXPERIENCE

Cornell Mars Rover (CMR) Science Sub-team Lead

Aug 2019-May 2021

Created and implemented tests that would be performed autonomously on the Mars Rover to determine if the soil and rock samples being analyzed on rover contain or once contained life.

CMR is a student-run engineering project team on campus, which aims to design an innovative Mars Rover to compete in the University Rover Challenge, which is held annually at the Mars Desert Research Station in Utah.

Chabot Space & Science Center, Oakland, CA

May 2018-Dec 2019

Designed, created, and performed complex scientific demonstrations based on astronomical concepts for visitors to science center.

PROFESSIONAL ORGANIZATIONS

The American Society of Mechanical Engineers

Women of Aeronautics and Astronautics (WoAA), Cornell University, Member

Society of Women Engineers, Cornell University, Outreach and Diversity Committee

SPECIALIZED SKILLS

Technical Skills: Trained to use lathe and milling machines, materials testing UTM.

Software Programs: MATLAB, ANSYS, AutoCAD, Autodesk Fusion360, Python, Excel.

Additional Skills: Teamwork, leadership, project management, problem-solving, and creativity.