BACHELORS
SPACE SCIENCE & ENGINEERING

CAREER OPTIONS**

- Astronomy
- Atmospheric Sciences
- Business Consulting
- Federal Government
- Planetary Sciences
- Scientific Research Labs
- Space Weather
- Technical Consulting

SAMPLE HIRING COMPANIES*

- Accenture
- Boeing
- NASA Jet Propulsion Lab
- Los Alamos National Lab
- Northrop Grumman
- OneWeb
- Ortibal ATK
- Sandia National Lab
- SpaceX
- University of Michigan

SAMPLE JOB TITLES**

- Astrochemist
- Planetary Scientist
- Geospace Scientist
- Rocket Scientist
- Space Instrumentation Engineer
- Space Plasma Physicist
- Space Systems Engineer
- Space System Dynamicist

SAMPLE EXTRACIRRICULARS**

- BLiSS
- GUStO
- MASA
- Michigan Geophysical Union
- Michigan Exploratory Lab
- MRover
- SEDS

*Source: ECRC Employment Data from Academic Years 2018-2023
**Source: majors.engin.umich.edu/program/space-sciences-engineering/

Data is subject to availability. At least 4 data points are required to publish salary data.
Visit career.engin.umich.edu/career/salary-info for more comprehensive data.

MICHIGAN ENGINEERING
ENGINEERING CAREER RESOURCE CENTER
UNIVERSITY OF MICHIGAN

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BACHELORS SPACE SCIENCE & ENG

SAMPLE ELEVATOR PITCH

Hi, I'm [NAME] and I'm a junior studying space science and engineering. I am seeking an internship in systems engineering.

Last summer I interned at Northrop Grumman where I created a program that read-in and plotted satellite signals in-real time which increased information flow. On campus I am part of MASA, the Michigan Aeronautical Science Associate where I analyzed the best material for the fuselage of the Tangerine Space Machine.

My applied technical experience along with my passion for solving technical challenges have prepared me for a role at your company. Can you tell me more about the role?

SAMPLE IMPACT STATEMENT

Before – *Built a rover*

After – Build ultrasonic sensors that detected uneven surfaces and withstood extreme temperatures up to -150° F and 80°F.

KEY COURSES

SPACE 324 – Instrumentation for Atmospheric and Space Science; discusses the fundamentals of atmospheric, space-based, and meteorological instrumentation
SPACE 423 – Data Analysis and Visualization; explores processes in the atmospheric boundary layer
SPACE 370 – Solar Terrestrial Relations; overview of solar radiation and it's variability on all time-scales
SPACE 310 – Intro to Satellite Mission Design; subsystems and thermal design, orbit & launch vehicles
SPACE 477 – Space Weather Modeling; introduction to the models of the space environment such as sun, magnetosphere, ring current, ionosphere, thermosphere and ionospheric electrodynamics

KEY SKILLS

Python, MATLAB – coding languages used to process and visualize data sets
GIS – used to map large data sets geographically
Systems Tool Kit (STK) – software to perform analyses air and space systems
Quantitative, theoretical &computational skills necessary to understand the Sun-Earth space system

SAMPLE EXTRACURRICULARS

Michigan Geophysical Union **Students for the Exploration and Development of Space**
GUStO - Graduate Undergraduate Student Organization in CLaSP
Student Teams - MRover, MASA, BLiSS, Michigan Exploratory Lab