

User Ethnography Profile: College Senior (Astrophysics Major)

Demographic Information:

- **Age:** 22
 - **Gender:** Male/Female/Non-binary (customizable based on the user)
 - **Occupation:** Full-time college student, senior year
 - **Education:** Pursuing a Bachelor's degree in Astrophysics
 - **Location:** University town, living in student housing or apartment near campus
 - **Income:** Low to moderate, mainly supported by scholarships, part-time work, or family
 - **Family Status:** Single or in a relationship, but not married; focused on academic and future career goals
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Behavioral Patterns:

- **Daily Routines:** Schedules revolve around lectures, lab work, research, and study groups. Often spends long hours at the university library or physics department's research labs. Balances academic work with part-time jobs or tutoring to manage living expenses.
 - **Technology Use:** Frequently uses a laptop for coding (e.g., Python, MATLAB), data analysis, and research paper writing. Relies on astronomical software and simulations for coursework and research projects. Stays connected with classmates and professors via email, Slack, and academic platforms (like Blackboard or Canvas).
 - **Leisure Activities:** Enjoys reading scientific journals, space-related content, or attending public lectures by astronomers. Occasionally watches science documentaries or attends campus social events to unwind. May participate in astronomy club or outreach programs for local schools.
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Needs and Goals:

- **Primary Goal:** Graduate with a strong academic standing and secure a position in a research institution, graduate program, or aerospace company.
 - **Secondary Goals:** Publish research in undergraduate journals, gain hands-on experience with telescopes and other equipment, and network with professors and industry professionals.
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Technological Proficiency:

- **Tech Comfort Level:** Advanced. Proficient with scientific programming languages (Python, C++, MATLAB), astronomy software (like Stellarium, AstrolmageJ), and LaTeX for paper formatting. Comfortable with data analysis and working with large datasets.
 - **Preferred Devices:** Laptop is the primary device for research, coding, and writing. Smartphone is used for communication, but academic tasks are mostly laptop-centered.
 - **Preferred Platforms:** Uses academic tools like Google Scholar, NASA's Astrophysics Data System (ADS), and arXiv.org for research papers. Communicates with peers through Discord, Slack, and email for group projects.
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Social and Cultural Influences:

- **Science-Focused Community:** Heavily influenced by professors, researchers, and fellow astrophysics students. Frequent participation in scientific discussions and community events related to space exploration and astronomy.
 - **Industry Trends:** Follows space agencies like NASA, ESA, and private companies like SpaceX for the latest developments in space technology, which influence career aspirations and academic projects.
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Challenges and Barriers:

- **Time Management:** Balances a heavy academic workload with research projects and part-time work, often struggling with time management and burnout.

- **Financial Stress:** As a college student, may face financial constraints, particularly when purchasing expensive textbooks or research materials.
 - **Academic Pressure:** Faces intense competition for internships, research opportunities, and grad school placements, leading to stress and the need for high academic performance.
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Quotes or Insights from Interviews:

- “I’m constantly juggling assignments, research, and job applications. Sometimes it feels like there’s not enough time in the day, but the thought of contributing to something like the next big space mission keeps me going.”
- “I love coding and using data to unravel the mysteries of the universe, but writing research papers is a challenge—LaTeX has become my best friend.”