"It lets you combine everything you've ever been interested in."

UNDERGRADUATE COMPLEXITY RESEARCH

at the **SANTA FE INSTITUTE**

Many challenges in the world today—algorithmic fairness, belief propagation, biodiversity, climate change, disease dynamics—extend beyond traditional academic boundaries due to their complexity. Research at the Santa Fe Institute aims to quantitatively describe, model, and understand complex systems drawing on theory from biology, social sciences, physics, math, and computer science.

LOGISTICS

- 10-week residential research program: Jun 4 – Aug 12, 2023
- $6000 stipend for the summer
- Housing and meals provided
- Paid travel to/from Santa Fe, NM

ELIGIBILITY

- All fields/majors welcome
- Quantitative skills and some programming experience are expected
- Students graduating before December 2023 are **not** eligible

ADVANTAGES

- Design and carry out your own research project
- Select a mentor from a transdisciplinary team of SFI faculty
- Join a global research network and forge career-lasting relationships
- Be a part of a small, supportive student group: 9 students per summer

PAST STUDENT PROJECTS

Find more student projects at **santafe.edu/engage/learn/projects**

Defining Life
Diana Avila Padilla (2022)

Are there optimal amounts and ratios of chemicals for the most fundamental functions of living cells? By developing mathematical models of cell physiology, metabolism, and genetics, we can define more efficient parameters in searching for life beyond Earth.

Vaccine Hesitancy
Naomi Rankin (2019)

Does age play a role in vaccine hesitancy? We created an agent-based model of a social network to investigate the importance of age-based clustering in belief propagation.

PAST MENTORS   Jessica Flack • Chris Kempes • Melanie Mitchell • Cris Moore • Melanie Moses • among other members of the SFI faculty

APPLY

Find more information and a link to the application at **santafe.edu/UCR**

For guidance on preparing your application, visit **ucr-tutorial.complexityexplorer.org**

Application deadline: **Jan 11, 2023**