## **CS 161 Spring 2024**

Project 1 / Question 2: Spica

## Spica (Launched 1977)

- Username: spica
- Points: 5 for checkpoint, 5 for code, 5 for writeup

Relevant lectures: 3 - Memory Safety Vulnerabilities

## **STORY**

The logs inside the Remus satellite contain a cryptic reference to a highly intelligent bot. Of course, you had heard of the urban legend of EvanBot, the top-secret genius AI that single-handedly developed Caltopian space travel technology, but the message in Remus suggests that it may be more than a legend. You decide to investigate further and follow the hint to Spica. Spica is an old Gobian Union geolocation satellite with a utility for viewing telemetry log files. Exploit this utility and hack into Spica to see what secrets it holds about the mysterious EvanBot.

telemetry is the vulnerable C program in this question. It takes a file and prints out its contents, but it expects the file to be specially formatted: The first byte of the file specifies its length, followed by the actual file.

The program also implements a check to make sure the buffer isn't too large. Can you see a way to get around this check?

The output of egg is forwarded to the input file, so print statements in egg will be written to the file.

## **Deliverables**

- A script egg
- A writeup.