Slide 1: Algorithm and Languages

The algorithm I chose was Floyd's Algorithm.

The language I chose was Lua.

This language is:

- Interpreted but can be compiled to bytecode
- Dynamically typed
- Professor Mota approved
- Lua means "Moon" in Portuguese
- It's used as an "extension language" meaning that it can be embedded in any other platform or system.

Slide 2: Implementation in Lua

```lua
local function floyd(W)
    local distance = {}
    for i = 1, #W do
        distance[i] = {}
        for j = 1, #W do
            distance[i][j] = W[i][j]
        end
    end
    for k = 1, #W do
        for i = 1, #W do
            for j = 1, #W do
                if distance[i][j] > distance[i][k] + distance[k][j] then
                    distance[i][j] = distance[i][k] + distance[k][j]
                end
            end
        end
    end
    return distance
end
```

Slide 3: Results and Conclusion

Python runtime(Avg over 10 runs): 2.19 secs
Lua runtime(Avg over 10 runs): .82 secs
Lua ran 2.67 times as fast as Python

In the future, my preferred language to use would be Python.

Python:

Pros: Expressive syntax. Easy to read and write.
Enormous standard library.

Cons: Speed.

Lua:

Pros: Syntactically like Python with elements of C.
Speed. Small size, making embedding a reality.

Cons: Syntactically like Python with elements of C.
Random bits of syntax. Global scoped variables.