CS/COE 1520

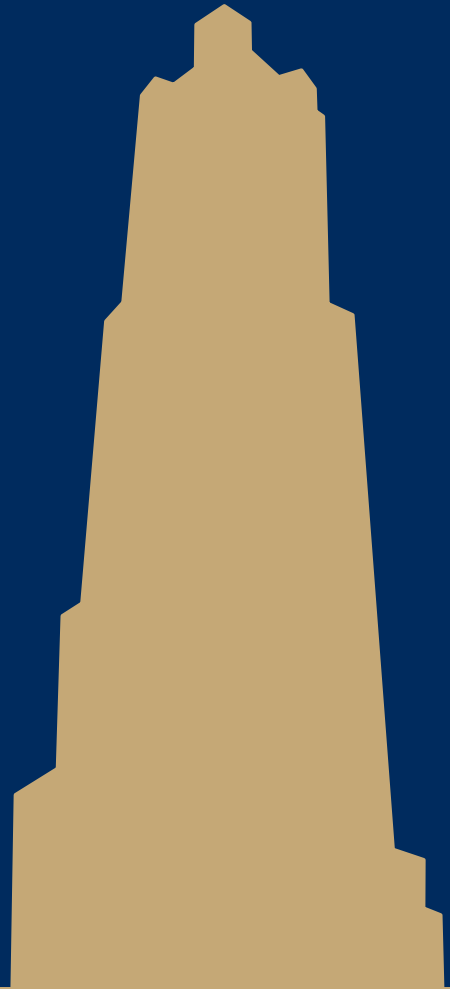**pitt.edu/~ach54/cs1520**

Server-side scripting with Flask

Flask

- A micro web framework written in Python

- First release was in 2010

  - Current version (1.1.1) was released in July 2019

- Currently powers LinkedIn and Pinterest

Hello World

```python
from flask import Flask
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello World!"

if __name__ == "__main__":
    app.run()
```

Cookies

- Small pieces of data authored by an HTTP server and stored on the client's machine

  - Well, that was the original intent, but also editable from JS

    - This was used as a hacky way to implement client side storage before HTML5

    - Do we want clients to be able to edit cookies authored by our site?

Flask sessions

- Allows access to cookie data in such a way that if the cookie is changed by the user, Flask will see this and disregard the session data

  - Does this by establishing a secret key in the Flask app

    - Only someone who knows the secret can modify the session data

    - Note: anyone can *read* the data, sessions just protect from *unauthorized modification*

Model-View-Controller (High level)

Controller
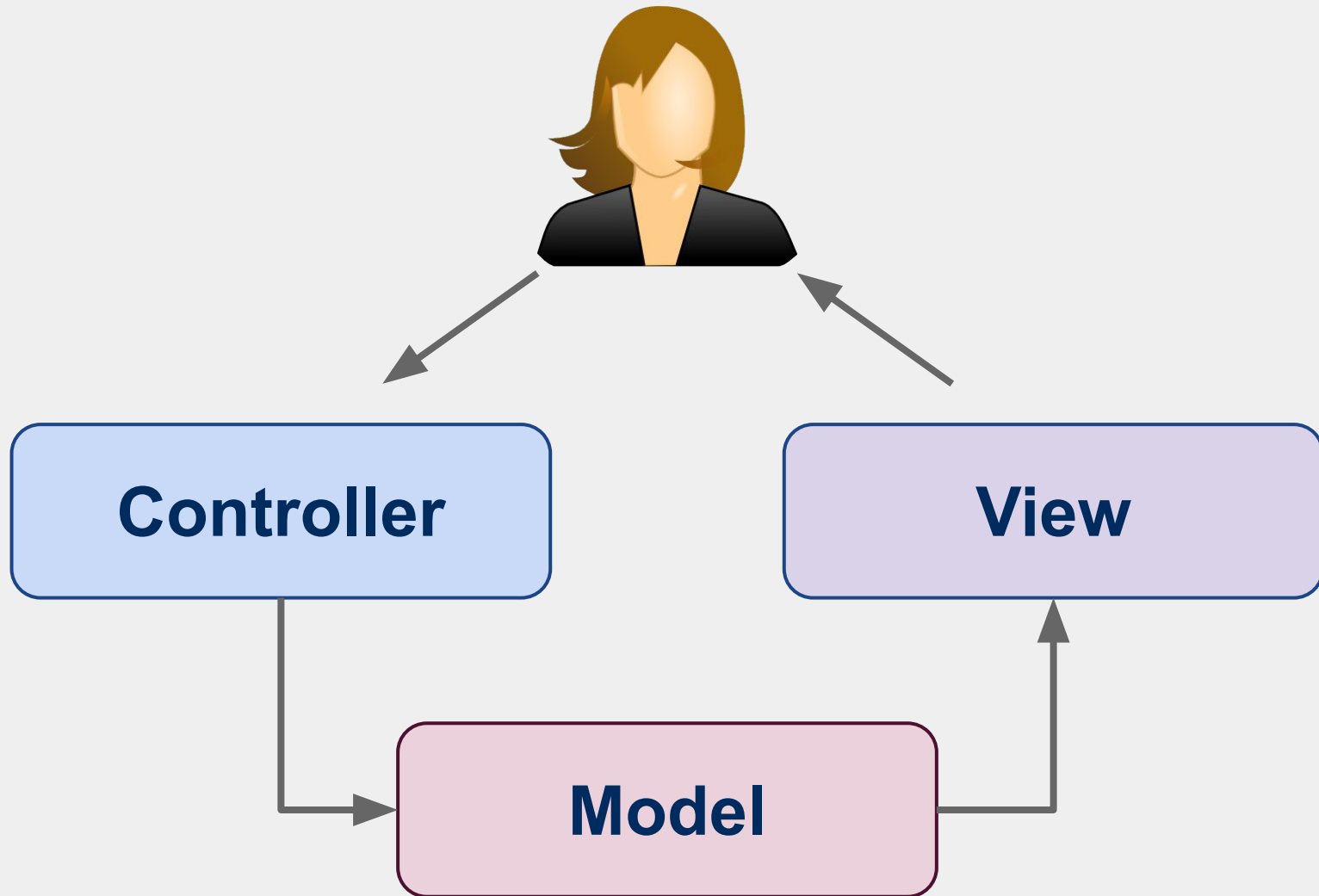
View

Model

MVC (Model-View-Controller)

- Controller
  - The decorated code you've seen up until this point
- Model
  - Handles interaction with stored data
  - We'll use an abstraction off of SQLite as our model
- View
  - Represents what is displayed to the user
  - We'll use templates of HTML files that are populated with data from our model