John Sy
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Projects

Weather Web Application

Flask web-application that displays weather information for any city/location in the world. Information displayed includes current temperature, precipitation chance, humidity, and wind speed for the day with a description of weather conditions and accompanying icon/image that reflects that weather condition. The page also displays a 7 day forecast for the location, in addition to an hourly temperature graph for the current day. All information can be converted between imperial and metric units with the simple click of a toggle that modifies the data displayed on the page dynamically. Features a weather-warning system that displays a warning message if the location searched will encounter severe weather conditions within the next 7 days. Furthermore a map of the location and surrounding areas is displayed with temperature and weather condition icons in a google-maps style. Expanded from a simpler course-related website from OSU.

Sushi Cat a Top-Down 2D Maze Traversal Game

The user plays as a cat collecting sushi in a top-down 2D maze created using turtle graphics module in Python. Uses a multidimensional array to create the playable map in which player, terrain, and object coordinates are maintained. This game was created as a personal exercise in OOP principles and will continually be updated upon. Future ideas include using graph algorithms to create randomized/dynamically generated maps, addition of basic enemy AI, and extending current item functionality to include equipment that augments the player character.

Animation Film Webscraper with SMS Notification

Web scraper written in Python utilizing BeautifulSoup4 and Twilio. Uses GET requests to local film theatres film schedules to specifically filter for animation/anime films in real-time. Resulting HTML/CSS/JavaScript converted to unicode and parsed with BeautifulSoup4 to obtain film title, description, screening location, and screening dates for each unique film. Using the Twilio sms REST API, the information per film is sent as an sms text to a recipient/phone number of your choosing.

School District Management Web Application (OSU Course Related)

A Flask web-application for use in viewing and managing Schools, Students, Classes, and Instructors for a hypothetical School District, created for Database Design course at OSU with full CRUD functionality. Consists of an HTML/CSS frontend whose displayed data from pages and input forms are dynamically generated from an originally designed database complete with entity relationship diagram and database schema. The webapp transmits SQL queries to the database managed with MariaDB. Users of the application can directly alter the database to add new schools, teachers, etc. and retrieve such information as well.

Employment

Honolulu Museum of Art | *Development Associate* July 2014 - March 2018

Responsible for data fidelity and management of client/donor databases containing sensitive financial information.

Developed automated procedures that used data from aforementioned databases to produce documentation reflecting parameters such as quarterly revenue and year to date comparisons of organizational fundraising goals for upper management use.

Manage relationships towards achieving organizational goals with the museum Board of Trustees, in addition to high-level donors who are leading figures in the business and political landscape in Hawaii and beyond.

Develop online and in-person sales protocols for museum products, creating Standard Operating Procedure manuals for staff use organization-wide. Managed contribution/financial information tracking, procurement strategies, and receipt for major special projects with budgets ranging from $0.25M - $1M.

Website

https://john-sy.com

Github

https://github.com/DarkHorse108

Skills

- ❏ Python
- ❏ C/C++
- ❏ SQL
- ❏ JavaScript/jQuery
- ❏ HTML5/CSS3
- ❏ IA-32 Assembly
- ❏ OpenCL/OpenGL
- ❏ CUDA
- ❏ OpenMP

Technologies

- ❏ MariaDB/MySQL
- ❏ Flask
- ❏ Node.js
- ❏ Git
- ❏ Linux (Ubuntu + Red Hat Enterprise)

Education

B.S. Computer Science
Oregon State University
(2018 - Present)

B.S. Biology
Hawaii Pacific University
(2010 - 2013)
Colorado State University
(2008 - 2010)