Kyle Spencer

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Education

The Pennsylvania State University

- BS in Computer Science, 2019 (Expected)
- 3.71 GPA
- Dean's List Multiple Semesters
- Tutor for Computer Science

Experience

Penn State Beaver Library   (May 2016 - August 2016)

Built a dynamic catalog website showing all DVDs available for borrow, providing an interface for browsing, searching, sorting, and adding DVDs.

- Used Node.js with Express and postgres to implement the backend of the website.
- Designed a single-page frontend with angular and bootstrap that asynchronously requested data from the backend server.
- Implemented a regenerating cache-based solution with node-cache to ensure fresh data for the primary pages always loaded quickly.

Penn State Beaver Library   (May 2015 - August 2015)

Created a dynamically generated and categorized showcase wordpress website for the science fiction books available at the Penn State libraries.

- Wrote a Java program with Selenium that downloaded relevant book identifiers from the Penn State Library website, then used the Goodreads API to acquire more book data.
- Created program to format the book data into HTML book pages and category pages and upload it to the wordpress website using Selenium.

Projects

HTTP Server

- Implemented an HTTP/1.1 server in Rust, with support for serving static files from a given directory.

Kernel

- Created a text-based x86 kernel with C and assembly.
- Implemented a command system supporting some base commands with parameters.

NASA Image API Timelapse

- Wrote a script with python to generate an overhead view timelapse GIF of anywhere on earth given the coordinates.
- Implemented functionality to access NASA's Earth Image API and download chronological images, then use ImageMagick to automatically generate the GIF.

Dynamic Forum Website

- Used python with flask to create a customizable forum website, with support for user accounts, posts, comments, and a dynamic subforum hierarchy.

View more at github.com/kylecs

Skills

Proficient: C++, Java
Skilled: Javascript, Python, C