# Kyle Spencer

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### The Pennsylvania State University

## Education

**Experience** 

- BS in Computer Science, Spring 2019 (Expected)
- Minor in Mathematics
- 3.71 GPA
- Dean's List Multiple Semesters

#### Penn State Beaver, Computer Science Tutor

(September 2016 - December 2016)

- Assisted students with class material and assignments.
- Provided students with in class assistance on several occasions.

#### **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 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. Taught people things

- 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.

#### **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

## **Projects**

- 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

Proficient: C++, Java

**Is** Skilled: Javascript, Python, C

Other: Linux, Git

**Skills**