

# 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
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## Experience

Penn State Beaver Library

(May 2016 - August 2016)

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

- Built on openshift free-tier with node.js and express, the backend serves and interacts with the angular frontend.
- DVD information is initially requested from the open movie database, then is stored in a postgres database.
- Used a dynamically regenerating cache to ensure that the newest results always load quickly.

Penn State Beaver Library

(May 2015 - August 2015)

Built a sortable showcase wordpress website for the science fiction books available at Penn State libraries.

- Used Java with Selenium to scrape book identifiers from the Penn State Library website, then used the Goodreads API to gather more book data.
  - Book data was formatted into HTML using a page template, then a custom wordpress bot using Selenium was used to upload the book pages.
  - Sorted category pages were generated and uploaded allowing for easy browsing.
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## Projects

Rust HTTP Server

- Used Rust to build a nearly spec compliant HTTP/1.1 server.
- Supports the serving of static files from a given directory.

Kernel

- A small text-mode x86 kernel written in C and assembly.
- Has a shell that supports a few basic commands with parameters.

Earth Image Timelapse

- A python script to use NASA's Earth Image API to download images chronologically from given coordinates.
- Uses ImageMagick to build images into a timelapse GIF image.

Flask Forum

- Uses python and flask to provide a customizable forum for discussion.
- Supports posts with comments, user accounts, and custom subforums.

View more at [github.com/kylecs](https://github.com/kylecs)

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## Skills

Proficient: C++, Java

Skilled: Javascript, Python

Libraries | Tools: Node.js, Git, Linux