

# Daniel R. Wright

(814) 969-8492 • danielrobertowright@gmail.com  
3501 Sheramy Drive • Fairview, PA 16415  
<https://github.com/13wrightd>

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## EDUCATION

### PENNSYLVANIA STATE UNIVERSITY

State College, PA

#### Bachelor of Science in Computer Engineering

- GPA: 3.13/4.00
- Graduation Date: Dec 2018
- Member of Phi Kappa Theta Fraternity
- Courses: Systems Programming, Data Structures and Algorithms, Operating System Design, Database Management Systems, Embedded Systems Programming

## EXPERIENCE

### Amazon Lab 126 Software Development Engineer Intern, Summer 2017

Cupertino, CA

- Developed a scalable MediaPlayer library that enabled engineers to easily integrate video into their *Alexa Show* services; engineers could call the simple-to-use API with only the video's address
- Created a custom mapping from *Alexa Show* user requests to applicable help videos, used this mapping to develop a feature that automatically followed up user input with an offer to watch the suggested help video
- Validated software with test driven development practices using JUnit and Mockito testing frameworks
- Wrote scripts to optimize tedious tasks such as monitoring multiple output logs to pinpoint causes of error

## SKILLS

### Programming

- Languages: C++, C, Java, Python, JavaScript, PHP, MySQL, HTML, CSS, Verilog HDL
- Frameworks/Libraries: Node.JS, jQuery, Socket.io, Angular, MongoDB, Express, Gulp, Mockito, Twilio
- Bash, GIT, JIRA, Arch Linux, Debian Linux

### Full Stack Development

#### Backend

- Own and operate multiple Linode virtual private servers to host many of my personal websites and projects
- Used multiple backend systems to create dynamic webpages including Apache with PHP, NodeJS with express, Java, and Python along with MongoDB, MySQL, and DynamoDB for databases
- Developed on top of a multi-layered backend system supporting a multi-turn response system using Java and a workflow engine for scalability

#### Frontend

- Constructed visually pleasing and responsive webpages using HTML, CSS, and JavaScript with utilization of a variety of front end libraries including Angular, jQuery, and various CSS libraries
- Created games and applications with animations and effects
- Facilitated user connectivity as well as live interaction and dynamic webpages using socket.io and ajax
- Supported multiple endpoints for a single server including webpages, mobile applications, and SMS messaging

## PROJECTS

- Applied computer vision algorithms to create a line following robot using a raspberry pi and camera module
- Coded a multi-process parallel program to perform various *MapReduce* tasks such as word count
- Implemented a multi-threaded operating system task scheduler capable of various scheduling algorithms using pre-emption and aging, ensuring concurrency via the use of mutex locks and condition variables
- Visualized the output of neural networks trained using a genetic algorithm by creating a 2D graphics engine
- Promoted responsible drinking by creating an iOS app previously on the iTunes store
- Developed various full stack website apps that create YouTube playlists which you can manage on the fly
  - **Tubify.tk** was hosted on a Linode VPS using Debian, Apache, PHP, MySQL, AJAX, JavaScript, and jQuery, but is no longer live
  - **Textify.tk** is a completely redesigned version of tubify.tk that uses Node.js, Socket.io, MongoDB, and Angular for playlist creation as well as socket.io for live synchronization of video playback and chatting between users on a multi-channel interface

## ADDITIONAL

- Dual citizen of the United States and Brazil; Portuguese heritage speaker
- Followed my passion for music and became a self-taught pianist
- Diamond rank in League of Legends and Overwatch games
- Enjoy applying hardware and software to my other hobbies including woodworking, gardening, and music