

# Kyle Rood

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1166 25th Street NW  
Washington, D.C. 20037

## EDUCATION

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**The George Washington University**, School of Engineering and Applied Science, Washington D.C.  
Bachelor of Science in Computer Science; Minor: Sustainability

**May 2020**

**Relevant Courses:** Databases and Team Projects, Systems Programming, Intro to Software Development, Discrete Structures I and II, Algorithms and Data Structures, Software Engineering, Computer Architecture, Physics I and II

GPA: 3.6

## TECHNICAL SKILLS

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**Programming Languages:** Java, C, HTML, SQL, PHP, Python, PostgreSQL, JavaScript

**Programs/Operating Systems:** Filmora, OSX, Linux, Windows

## TECHNICAL PROJECTS

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### Generic Web-Based Image Classifier

**July 2018**

- Python and Flask based pipeline to classify any object the user wants
- Download images of an object, trains a Keras neural network on 256 ImageNet categories, and allows user to upload a test image and the model will identify the object in the image

### PHP based DBMS (Team based)

**March 2018-May 2018**

- Web based application to simulate the application and course registration system at The George Washington University
- Designing system with multiple types of users, each with different roles in the system (admin, applicant, etc.)
- Front end and back end management of the system

### Simulation

**October 2017-November 2017**

- Simulated a forest fire given a random landscape of trees and a random ignition pattern
- Accounted for the fact that different types of trees will burn differently
- Made a GUI to display the landscape as it burned, as well as data relevant to the simulation (number of trees burned, number of live trees, how many trees were currently burning, etc.)

## RESEARCH EXPERIENCE

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**Computer Science Department, The George Washington University, Undergraduate Research Asst.** Oct. 2017 - Present

- Modularize a computer science curriculum to bring it to an online audience
- Write and record audio/visual segments to help teach undergraduate students about introductory computer science topics

**Computer Science Department, Project AMOS Undergraduate Research Asst.**

**Dec. 2017 - Present**

- Using database of 3,000 cameras and over 1 billion images from all over the world
- Revamping and redesigning a website and database to use these webcam images for different image analyses
- Front end and back end development of an entire website based in the Python library Flask

## EXTRACURRICULAR EXPERIENCE

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### Damien's Food Pantry

**Dec.-Jan. of 2014-Present**

- Giving groceries to local homeless people on Wednesdays and Saturdays

### Engineers without Borders

**March 2018-Present**

- Designing and building a water catchment system to install on rooves in La Pena, El Salvador
- Prepare for a trip to La Pena by organizing logistics and paperwork with a team of students

## WORK EXPERIENCE

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### Learning Assistant for Python Class

**Sept. 2018-Present**

- Helping students with in class exercises involving python in the context of data analytics
- Holding office hours to help students with work outside of class

### The Mac Express, Wareham, MA

**Jan.-Aug. 2016**

- Sales and Apple Certified Tech Team
- Provided tech support for all Apple Products