Kyle Rood

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EDUCATION

The George Washington University, School of Engineering and Applied Science, Washington D.C.   **May 2020**

Bachelor of Science in Computer Science; Minor: Sustainability

Relevant Courses: Databases, Embedded Systems, Discrete Math I and II, Algorithms and Data Structures, Software Engineering, Computer Architecture, Physics I and II, Operating Systems, Theory of Computing

GPA: 3.6

TECHNICAL SKILLS

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

Python Libraries: Flask, Pandas, Matplotlib, Keras

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

TECHNICAL PROJECTS

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

Registration System (Team based)   **March 2018-May 2018**

- PHP based database management system 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

Forest Fire 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 classes of trees will burn differently
- GUI to display the landscape as it burned, as well as data relevant to the simulation

Arduino Heart Rate Monitor   **February 2018-May 2018**

- Arduino based system to monitor heart rate and alert you if your heart rate went above a threshold

WORK EXPERIENCE

Undergraduate Research Assistant, Project AMOS *GW Computer Science Dept.*   **Dec. 2017 - Present**

- Using database of 3,000 cameras and over 1 billion images from all over the world
- Machine learning/Image Classification research projects on this massive dataset
- Lead developer of front and back end of an entire website based in the Python library Flask

Undergraduate Research Assistant, Project Gateway to CS *GW Computer Science Dept.*   **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

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

EXTRACURRICULAR EXPERIENCE

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