

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
5-Year Masters in Computer Science, Concentration in Artificial Intelligence **May 2021**
Relevant Courses: Machine Learning, Android Programming, Operating Systems, Databases, Embedded Systems, Algorithms and Data Structures, Software Engineering, Computer Architecture, Physics I and II
GPA: 3.6

TECHNICAL SKILLS

Programming Languages: Java, C, HTML, SQL, PHP, Python, PostgreSQL, JavaScript
Python Libraries: Flask, Pandas, Matplotlib, Keras, Tensorflow, Scikit-Learn, GBDX, Descartes Labs
Programs/Operating Systems: Filmora, OSX, Linux, Windows, Docker, BitBucket, GitHub, Postman

TECHNICAL PROJECTS

Generic Web-Based Image Classifier **July 2018**
• Python and Flask based pipeline to classify any object the user wants
• Downloads images of user-specified object, trains a Keras neural network using ImageNet, outputs model for that object
Amber Vision (Senior Design) **Present**
• Machine Learning analysis of hundreds of cameras in the DC Metro Area to find cars in specific time/place
• Web application to display real time car detections, and query functionality to look up historical results
DoHub, George Hacks Hackathon (1st Place Preliminary Round) **Nov. 2018**
• Volunteer Management system for Mongolian Human Trafficking Prevention non-profit called Lantuun Dohio
• Database of volunteers (PostgreSQL), web front end for scheduling/registering for events (Python/Flask/Heroku)
netWorks (for New Venture Competition) **Present**
• Mobile application using QR code scanner to add person on every one of their social media pages at once
Registration System (Team based) **Mar. 2018-May 2018**
• Database management system with PHP and HTML front end, with an SQL backend
• Integrated and deployed course registration and application modules written by different team members
Arduino Heart Rate Monitor **Feb. 2018-May 2018**
• Arduino based system to monitor heart rate and alert you if your heart rate went above a threshold

WORK EXPERIENCE

Software Engineering Intern DZYNE Technologies **June 2019 - Present**
• Built environment to automate testing of different machine learning algorithms using DigitalGlobe and Docker
• End to end pipeline to download and mosaic high resolution imagery for machine learning training data
Undergraduate Machine Learning Research Assistant, Project AMOS GW Computer Science **Dec. 2017 - Dec. 2018**
• 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 a 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 Intro 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
Engineers without Borders **Mar. 2018-Present**
• Designing and building a water catchment system to install on rooves in La Pena, El Salvador