

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, AR/VR Development, Software Engineering, Computer Architecture, Physics I and II
GPA: 3.6

TECHNICAL SKILLS

Programming Languages: Python, Java, C, HTML, SQL, PHP, PostgreSQL, JavaScript, Kotlin, MongoDB, React
Python Libraries: Flask, Pandas, Matplotlib, Keras, Tensorflow, Scikit-Learn, GBDX, Descartes Labs
Programs: AndroidStudio, OSX, Linux, Windows, Docker, BitBucket, GitHub, Postman, AWS, Amazon Sumerian

TECHNICAL PROJECTS

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
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
“Dye” VR Simulator **Jan. 2020-Mar. 2020**
• Used Amazon Sumerian to Develop 3D environment to simulate playing a game of dice at my house in D.C.
• Includes accurate model of backyard, environmental elements, and a playable dice game (with accurate scoring and AI)
hitMeUp (New Venture Competition) **Fall 2019**
• Android (Kotlin) application using QR code scanner to add person on every one of their social media pages at once
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)
Registration System (Team based) **Mar. 2018-May 2018**
• Integrated and deployed database management system with PHP and HTML front end, and an SQL backend

WORK EXPERIENCE

Software Engineering Intern *LinkedSenior* **Feb. 2020 - Present**
• React and Spring based system to help nursing homes care for patients, and help patients enjoy nursing homes more
Undergraduate Machine Learning Research Assistant *GW Computer Science* **Sept. 2019 - Present**
• Performing water depth estimation using satellite imagery from multiple sources
• Built for DZYNE Technologies in ongoing DARPA project to assist in response to natural disasters
Software Engineering Intern *DZYNE Technologies* **June 2019 - Aug. 2019**
• 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
Teaching 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
Undergraduate Research Assistant, Project Gateway to CS *GW Computer Science Dept.* **Oct. 2017 - Dec. 2018**
• Write and record audio/visual segments to help teach undergraduate students about introductory computer science topics