# Will Snyder

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## Education

BS in Computer Science, **UMD: College Park** Graduation date: August 2019

*Relevant 400 Level Courses*: Data Structures, Design and Analysis of Advanced Algorithms, Game Programming, Parallel and Distributed Computer Systems

*Most Valuable Projects*:
- Full MX-CIF quad-tree implementation in C supporting advanced operations (CMSC420-Data Structures)
- Final project in Unity3D (CMSC425-Game Programming)

## Internship Experience

*Intern*, **Space Telescope Science Institute**, Baltimore MD Summer 2015

- Developed a system that allowed users to generate official documents from templates using a simple web interface, deprecating bloated MS Word/VB based software.
- Structured the backend spine of the system in Groovy on Grails and developed a front-end prototype that remains mostly unmodified in the shipped product.
- Worked weekly with users to fine tune the system's functionality while dealing with considerable limitations of a purely web-based editing approach to formal documents with strict formatting.

*Intern,* **Space Telescope Science Institute**, Baltimore MD Summer 2016

- Continued project from previous summer, developing full stack support for batch generation of hundreds of documents at a time.
- Set up basic Groovy on Grails infrastructure to support integration of Elasticsearch into the astronomer profile database service. Prototyped with basic database integration.

## Personal Projects

- Developing a Lego perception pipeline trained to generate 3D models from images of Lego creations. Consists of **Python** scripts for rendering training images from **Blender** and neural networks trained to generate point clouds from 2D images.
- Developed a VR (**Oculus Rift S**) space exploration game (**Unity3D**) requiring a player to collide asteroids to solve a puzzle. Integrates complex physics/zero-G with VR interactivity.
- Created an audio-based survival game in **Unity3D** for my CMSC425 final (group) project. Created models for the entire level, basic AI, and **a realistic audio occlusion system**.

## Skills

*Unity3D/C#*, *Git, Java, OpenGL*,* Blender*, Python, C/C++, Tensorflow* (*=self taught)