

# Will Snyder

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<https://whsnnyder.github.io/>

## Education

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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)

## Work Experience

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*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

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- 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 space exploration game (Unity3D) requiring a player to telekinetically collide asteroids to enter a tomb, while piloting a spacecraft. Integrates complex physics/zero-G with VR interactivity.
- Created an audio-based survival game (Unity3D) for my CMSC425 final (group) project. Created models for the entire level, basic AI, and a realistic audio occlusion system.

## Skills

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Unity3D/C#, Git, C/C++, Python, Java, OpenGL, Blender, Tensorflow