

# Zachary SHORE

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## WORK EXPERIENCE

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**Research Assistant** to Dr. Eric Patterson  
*Clemson University* - Clemson, South Carolina

AUGUST 2017 - CURRENT

Responsibilities:

- Currently developing a tool for capturing roughness maps using a light stage with 2<sup>nd</sup>-order spherical harmonic lighting and photogrammetry.
- Developed a set of Python scripts for automating normal map generation using photogrammetry and light stage data.
- Developed a PyMEL module for simulating a light stage using Arnold for Maya 2016.

**Pipeline TD** for DreamWorks Animation Summer Project (DWASP) 2017  
*Clemson University* - Clemson, South Carolina

MAY 2017 - JULY 2017

Responsibilities:

- Developed a tool for publishing Ptex texture assets from Mari for use in the Digital Production Arts (DPA) pipeline.
- Updated all artist tool sets within pipeline to latest available versions.
- Updated DPA's new render wrangling tool Ranchhand based on artist feedback.
- Generalist TD and damage control for the animated shorts *Disposable* and *Swept Up*

**Research Assistant** to Dr. Jerry Tessendorf  
*Clemson University* - Clemson, South Carolina

AUGUST 2016 - APRIL 2017

Developer for Gilligan, a high fidelity ocean scene simulation engine for military applications.

- Developed an interface wrapper using CUDA to standardize allocating and transferring memory between host and device.
- Developed a GPU accelerated raymarcher for real-time rendering of clouds and weather effects.

**Pipeline Production Assistant** to Dr. Victor Zordan  
*Clemson University* - Clemson, South Carolina

AUGUST 2015 - MAY 2016

Worked as a pipeline TD for the Digital Production Arts (DPA) department.

- Developed a tool for submitting Arnold render jobs to DPA's in-house render queue system.
- Designed and implemented a new, more artist-friendly render wrangling application. Used extensively for the DWASP2017 shorts *Disposable* and *Swept Up*.

## TECHNICAL SKILLS

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- C/C++, Bash, Python, PySide, PyMEL, VEX, Qt, Git
- CUDA, OpenCL, OpenGL 4, GLSL, OpenVDB, Swig,  $\LaTeX$
- Maya, Mari, Substance Painter, Nuke, Houdini, Arnold, Shotgun

## EDUCATION

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**Master of Fine Arts in Digital Production Arts**  
*Clemson University* - Clemson, South Carolina  
Focus: Shaders, Surfacing and Pipeline

MAY 2018

**Master of Science in Computer Science**  
*Clemson University* - Clemson, South Carolina  
Focus: Graphics and Visualization

AUGUST 2015

**Bachelor of Science in Computer Science**  
*High Point University* - High Point, North Carolina  
Double major in Computer Science and Mathematics

MAY 2012