

Tallahassee, FL

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# Education

### (Ongoing) Florida State University

Tallahassee, FL

Bachelor's of Science, Computer Science, Math Minor (3.5/4.0 GPA)

Aug 2020 - May 2024

# **Experience & Professional Development**

### **PlayStation Studios Visual Arts**

San Diego, CA

Technical Artist Intern

May 2023 - Aug 2023 (4 months, full time)

- > Designed and wrote tools and automations in Python for Autodesk Maya with PyQt/Pyside2 GUI, rewrote old tools to conform to modern coding standards and best practices.
- > Developed a tool that replaces Maya Shelf Editor with a custom, simplified UI and automates tool deployment across several supported Maya versions by converting redundant MEL to non-redundant JSON.
- > Made user-facing documentation on Confluence.

## DevLUp FSU (Game Development Club)

Tallahassee, FL

President

August 2023 - May 2024 (10 months, part time)

- > Designed, organized and ran hands-on workshops on games programming, workflows, 3D art.
- > Developed a club website and began use of agile tasking to organize operations.
- > Hosted game jams (hackathons) and games industry recruiters to talk to members.

# Steamroller Technologies

Mount Dora, FL

Pipeline Intern

May 2022 - Aug 2022 (4 months, full time)

- > Worked in a team on designing and developing a pipeline for Unity and Unreal Engine development in Python with workflow-specific optimizations and automations for version control with Plastic SCM, build automation with Jenkins, Agile tasking and project management with Jira.
- > Made a Jira task submission tool for Slack with Slack Bolt, Slack Block Kit and Atlassian's REST API to reduce workload for producers for developer submitted tasks developers can submit tasks through a Slack GUI app that will be sent to their producer and created automatically with one button press to approve the task.

# Florida State University - College of Motion Picture Arts

Tallahassee, FL

Virtual Production Research Intern

Mar 2021 - Apr 2022 (1 year 2 months, part time)

- > Worked on an educational VR tour of Reims Cathedral for the Oculus Quest using Unreal Engine from laser scans and reference photography completed scan processing in Reality Capture, retopology and texture cleanup in Blender.
- > Helped construct and configure LED volume for virtual production and configure livelink Mo-Sys RED camera. Operated Unreal during shoots, virtually moving lights, changing setups, troubleshooting, etc.

# **Projects**

### Physics-Driven Liquid Beer in Unreal Engine 5

Unreal Engine 5, Blender, Photoshop

- > Blueprint script calculates liquid surface position/normal and "turbulence" from bottle movement and rotation, sends to material.
- > Material creates masks with custom render layer and position information to shade liquid, the liquid surface, and glass differently on one mesh, with a sine material function to make the liquid surface appear non-planar.
- > Foam and bubbles appear when upset and dissipate when at rest.

#### 4x Game Jams

Godot Engine(gdscript) and Unreal Engine 4(Blueprint), Git/Plastic SCM, Blender/Maya, Photoshop

- > Organized and produced four 3D games, each designed and produced in 48-72 hours.
- > Programmed character controllers, animation state machines, random spread weapons, effects spawning.
- > Made textures, materials, effects/particles, skeletal meshes and animations for characters and weapons.

#### Mazda RX-8 Racecar in Unreal Engine 4

Unreal Engine 5, Blender, Photoshop

- > Made all materials, lighting setups, rendered for print with the Unreal Movie Render Queue and path traced renderer.
- > Types of surfaces include matte and shiny vinyl stickers, moulded race tires, carbon fiber, cloth/polyester.
- > Car uses material layers, with a decal sheet to reduce texture size while maintaining high fidelity.

#### Maya Procedural Snowman Creation Tool

Python, Maya.cmds API

> Python Maya native UI (have built Maya Qt UI for work) allows users to set values for snowman ball sizes, "happiness" (mouth curve profile), size and number of coal buttons and create snowmen with simple materials.

My Personal Website

Jeykyll, HTML/CSS, Github Pages, AWS Lambda, Github Actions

# Tools, Activities, Interests

Languages and Tools: Python • C++/C/C#/Java (for school projects) • Autodesk Maya/MEL • Unreal Engine materials and Blueprint • Blender • Git/Github • Jira/Confluence/Atlassian REST API • Reality Capture • Davinci Resolve • Photoshop

Activities and Interests: Pizza! • Espresso/Abstract Latte Art • Filmmaking, Cinematography/Photography • Racecars • Hiking • Guitar/

Songwriting