# Natalie O'Leary

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## *EDUCATION:*

**University of Southern California**                                  Sept. 2021 – Aug. 2023
Master of Science in Computer Science: Multimedia and Creative Technologies GPA; **3.8**

**Princeton University**                                  Sept. 2017 – May 2021
Bachelor of Arts in Computer Science; Minors in Musical Theater & Visual Arts; GPA: **3.7**

## *RELEVANT EXPERIENCE:*

**Hornet Animations**                                  Jan. 2024 - Present

**Pipeline Technical Director, Jan. 2026 - Present**
- Support artists across the studio working in Maya, C4D, Houdini, Blender, Nuke and other DCCs
- Create tools for the animation pipeline and for artist experience
- Handle render farm management on AWS and local farms

**Jr. Pipeline Technical Director, Jan. 2024 - Jan. 2026**
- Created a CFX pipeline for Mac Miller's Balloonerism, for the CFX of 15 characters in 100s of shots
- Handled day to day technical problems and challenges in a dynamic studio environment

**CGI Art Intern, Soul Machines**                                  May 2022 – Aug 2022
- Created a code infrastructure for importing Digital Humans from company's proprietary software to universal platforms including Maya, Unity, Unreal Engine
- Used USD to preserve all facets of Digital Humans as they are transferred between platforms
- Stress tested the look development of the Digital Humans across platforms to ensure a consistent appearance

**Graduate Researcher, USC Computer Graphics Lab**                                  Sept. 2021 – Aug 2023
- Worked with a team of researchers under Prof. Barath Raghavan to create CG animated versions of real life farming scenarios with polyculture agroecosystems
- Applied animation rendering techniques to real world light intake, to facilitate efficient farm layouts
- Simulated 5 ecosystems to create a tool to optimize and create a layout for real life polyculture farms
- Used OpenGL and GLSL to compute optimal plant configuration given light and canopy conditions

**Center Director, Code Wiz**                                  May 2021 – Aug 2021
- Ran the operation of the Westford location, running classes, supervising instructors, and all administration duties for that branch
- Handled class and camp registration for over 300 new and returning students
- Supervised in-person kids at camp from 9-5, acting as both an administrator and a coding teacher
- Taught Unity, Roblox, Robotics and Minecraft coding

**Hollings Scholar AWS Cloud Intern, NOAA**                                  Jun. 2020 – Aug. 2020
- Set up cloud computing through JupyterHub and ran analysis scripts on cloud data
- Collaborated with the Earth System Grid Federation to centralize inter-agency resources
- Liaised between ESGF and GFDL via the Cooperative Institute for Modeling the Earth System

**Teaching Assistant, Computer Science Dept. Princeton University**                                  Jan. 2019 – May 2021
- Reviewed work of 8 other graders weekly to ensure fair and consistent grading
- Instructed on course material for 3 Computer Science courses taught in Java, Python and C
- Graded assignments of over 100 students in Computer Science courses weekly

## *SKILLS:*

**3D**: Maya, Houdini, Blender, Motionbuilder, ZBrush, Nuke, Unreal, Unity, 3ds Max, Arnold, Karma
**Scripting:** Python, Java, C/C++, OpenGL, HLSL, USD, Unix/Linux, HTML, Javascript, AWS
**Admin:** Adobe: Photoshop; Premiere; After Effects; Acrobat, Microsoft: Excel; Word; Powerpoint