

EDUCATION

Santa Clara University, B.S. Computer Science and Engineering

September 2014 - June 2018

- SCU ACM SIGGRAPH President and Founder
- STEM National Science Foundation Scholar
- Emphasis in Software Engineering, Computer Graphics Systems, 3D Animation/Modeling, Distributed Computing

EXPERTISE

Tools Development, Production Pipelines, Computer Graphics Systems, Artist Workflows, Studio Technology

Languages	Python, C++, C, JavaScript, HTML, CSS, SQL
Workflows / Platforms	Linux (RHEL7 + Centos), Perforce, Git + (Github/Gitlab), JIRA
APIs / Frameworks	PyQt/Qt, Django, Docker, Ansible, Google App Engine, AngularJS, Flask, Node.js
CG / Studio Tools	Maya, RV, Houdini, Redshift, OpenGL (for low-level graphic interfaces)
Databases	PostgreSQL, MySQL, OracleSQL, Google Datastore

EXPERIENCE

Blizzard Entertainment - Research and Development, Intern

June 2018 - Present

- Creating tools to manage renders for imported models, props, assets, and sequences from Maya, Houdini, and Nuke
- Improving capabilities of artist tools dependent on asset element hierarchy, especially for tools used in animation, modeling, texturing, and layout reliant on robust element mappings

Industrial Light and Magic (ILM / Lucasfilm) - Pipeline Engineer, Intern

June 2017 - September 2017

- As part of the global Pipeline Engineering department, built tools and created software for ILM's in-house render farm system, asset management infrastructure, media creation pipeline, and data transfer services
- Collaborated with Walt Disney Animation Studios in implementation of *Coda* and *Dpix* software for render queuing and media/review libraries, respectively
- Developed core API service for automated global studio data transfer and remote VFX Supervisor platforms
- Led rearchitecture of ILM's core media player (RV); alongside Pipeline TDs, created new plugin framework

Disney Interactive - Software Engineer, Intern

June 2016 - September 2016

- Within the Media Technology Engineering Team, created administrative tools to manage digital art assets, including video and image media, metadata, and transcoding (including metrics, statistical analysis, database management)
- Improved scalability of the asset manager through design of database helper functions
- Designed and implemented software to manage reindex and asset mapping for in-house art production pipeline and CMS

Santa Clara University, 3D Animation and Modeling - Teaching Assistant

September 2016 - Present

- Taught Computer Graphics fundamentals and the 3D Modeling/Animation pipeline, including Maya and introductory technical direction

PROJECTS

Pipeworks: Cloud-based CG Pipeline for Distributed and Remote Collaboration

January 2018 - Present

 Awarded for Best Project of Senior Design Session, May 2018

Pipeworks is a suite of technologies that provide teams a cloud-based platform to manage artistic assets, shots, sequences, and scenes to streamline CG production. Includes a cloud API, SDK, desktop-based SaaS, and new design language.

- Python, PyQt5, Qt5, Flask, Google Cloud Endpoints, Google Cloud Storage, Google App Engine

Disney Matterhorn Digital Asset Manager

Summer 2016

Web-based Image, video, and file manager for digital art assets. Built multiple administrative tools and interfaces for: video transcoding, metrics, diagnostics, meta data/legacy tracking, and indexing helper tools.

- Python, Flask, Google App Engine, Google Cloud Storage, Datastore API

vcontrol: A Lightweight Version Control System for Digital Art Assets and Binary Data

January-March 2018

vcontrol is a lightweight CLI VCS that supports a simplified and lightweight platform allowing artists to stage local versions of art assets before committing them for review in an existing pipeline. Supports VCS commands including committing, reverting, branching, fetching, ect. for distributed version control and remote workflow support. Works with CG software project folders.

- Python