

## EDUCATION

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**Santa Clara University, B.S. Computer Science and Engineering** CGPA 3.5 *September 2014 - June 2018*  
SCU ACM SIGGRAPH President and Founder  
Courses: Computer Graphics Systems, 3D Animation/Modeling, Software Engineering, Distributed Computing  
STEM National Science Foundation Scholarship

## EXPERTISE

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

<i>Languages</i>	Python, C++, C, JavaScript, HTML, CSS, SQL
<i>Workflows / Platforms</i>	Linux (RHEL7 + Centos), Perforce, Git + (Github/Gitlab), JIRA
<i>APIs / Frameworks</i>	PyQt/Qt, Django, Docker, Google App Engine, AngularJS, jQuery, Node.js
<i>Computer Graphics</i>	Maya, Houdini, OpenGL
<i>Databases</i>	PostgreSQL, MySQL, OracleSQL, Google Datastore

## EXPERIENCE

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**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
- Worked closely with Walt Disney Animation Studios in implementation of *Coda* and *Dpix* software for render queuing and media/review libraries, respectively
- Created core API service for automated global studio data transfer and remote VFX Supervisor platforms
- Led rearchitecture of ILM's core media player (RV); alongside Pipe TDs, created new plugin framework

**Disney Interactive - Software Engineer, Intern** *June 2016 - September 2016*

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

**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

**Hoana Medical - Software Engineer, Intern** *June 2015 - August 2015*

- Engineered tool to analyze wireless data packages from sensory data and to detect anomalies
- Achieved 99% message integrity through checksum tool implementation
- Built medical monitoring mobile and web application that improved load times by 25% compared to the previous implementations with additional live-updating graphs

## PROJECTS

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**Procedural Modeling Tools for Surrealist Art Style (Houdini, C++)** *In Development*

**Disney Matterhorn Digital Asset Manager** *Summer 2016*

- Image, video, and file manager for art digital assets. Built multiple administrative tools and interfaces for: video transcoding, metrics and diagnostics, meta data tracking, legacy tracking, and indexing helper tools
- Python, Flask, Google App Engine, Google Cloud Storage, Datastore API

**Cubic Lattice Constructs for Art-Directed Motion Paths in Volumetric Simulations** *In Development*

- This method creates a lossy optimization for volumetric simulations by building a cubic lattice in a 3D space, and providing a better pre-visualization for art-directed motion paths.
- Maya, C++

**Distributed Creative Content Collaboration Platform (Senior Thesis)** *In Development*

- A cloud-based suite of software that will enable small to medium sized teams to bring their creative ideas into reality by providing a comprehensive, yet modular set of tools to support a modern creative content pipeline.
- Python (Server Scripting), C++ (Qt), Web-based technologies (Django, Google App Engine)