BRYSON LEE

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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
Courses: 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	RV, Maya, Houdini, OpenGL
Databases	PostgreSQL, MySQL, OracleSQL, Google Datastore

EXPERIENCE

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

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

Awarded for Best Project of Senior Design Session, May 2018

Computer Graphics (CG) digital art projects (including 3D Animations, Visual Effects, and Cinematics) have highlighted the technical and logistical difficulties associated with creating professional CG content. Pipeworks is a suite of technologies that solves these issues by providing teams a comprehensive, out-of-the-box, and modular tool set to streamline CG production.

- Python, C++, 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 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.

- Python

learn more about my work and projects at www.brysonlee.com