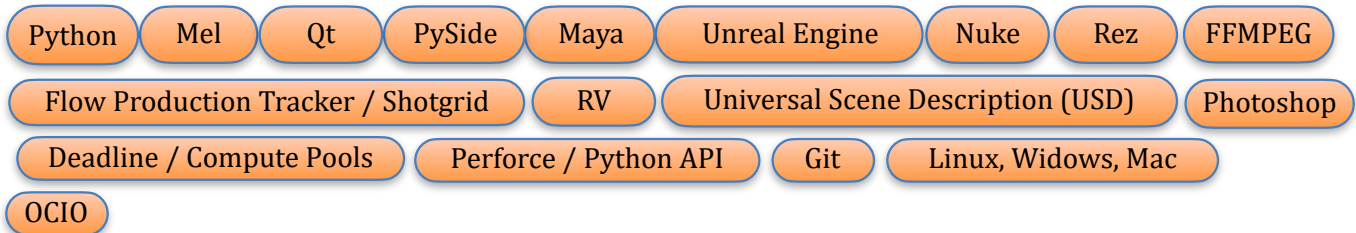# Adam Chrystie

Email: hire_adam@atomfx.com | Glendale, CA. 91202

PROFESSIONAL SUMMARY

Skilled Software Engineer and Pipeline Technical Director with 17+ years experience implementing pipelines & workflows which optimize production efficiency. Proven ability to collaborate with stakeholders to identify needs and develop customized tools for a wide variety of production departments which streamline processes, enhance cross-departmental collaboration, and allow artistic crews to focus on their craft. Expertise in compute clusters, render farms & "workflow as code" platforms which enable scalable processing of complex tasks resulting in saving thousands of work hours.

RELEVANT SKILLS

Python · Mel · Qt · PySide · Maya · Unreal Engine · Nuke · Rez · FFMPEG · Flow Production Tracker / Shotgrid · RV · Universal Scene Description (USD) · Photoshop · Deadline / Compute Pools · Perforce / Python API · Git · Linux, Widows, Mac · OCIO

PROFESSIONAL EXPERIENCE

Technical Director   **12/2023 - 11/2024**
Visual Concepts Entertainment, Novato, CA.

- Developed automations & setup infrastructure which could timely process 14,850 rigged Maya characters producing data suitable for Unreal Engine. The ability to repeatedly iterate over the data set was essential.
- Programmed Nuke & Python automations which created thousands of 2D images from ascii data files, saving thousands of artist hours.
- Researched & implemented an automated methodology for generating levels in Unreal Engine using Universal Scene Description (USD) data, ultimately swapping in final status Unreal assets.
- Created a remote Amazon Deadline based render farm to process tasks sent to Unreal Engine, Maya, Nuke & Python at scale, saving thousands of work hours. I managed the farm, decided which hardware to use & configured all machines.
- Utilized Flow Production Tracker Toolkit API (Shotgrid Toolkit) to provide application launch environments ensuring all crew members experienced the same versions of software & pipeline tools, resulting in an 80% decrease in help tickets.
- Answered artist help requests.

Technical Director   **9/2019 - 12/2023**
Feature Animation At Netflix, Burbank, CA.

- Worked within a team during the early life of the studio which documented the needs of multiple productions & their departments to aid the process of configuring Flow Production Tracker, formulate naming standards, identify areas which could be automated & sunshine features which our pipeline would need to support.
- Created tools which resulted from our early studio needs investigations or were requested later by departments such as Editorial, 3D Previs, Art / Design, Storyboarding, 3D Visual Development, Incoming / Outgoing Deliveries. When appropriate, each tool had it's own PySide / Qt graphical user interface.
- Provided Flow Production Tracker (Shotgrid) automations for multiple departments via AMIs, Toolkit API & Event Daemon Triggers/Plugins which greatly increased productivity across multiple productions.
- Setup, administrated and added new features to Flow Production Tracker Event Daemon.

- Coded python tools which automated processing the studio's incoming deliveries, resulting in a daily average of 1,000 deliveries being correctly registered within Flow Production Tracker.
- Wrote artist tools & Python modules related to exporting prop & rigged Maya character data, including xGen hair, as data which could be imported in to Unreal Engine in an automated fashion.
- Acted as the Technical Director representative within the "Media Playback & Review" workgroup which met with productions to document their needs & handled integrating review software such as RV, OCIO, SyncSketch, CineSync & BlueScape in to production workflows.
- Programmed a production's Maya Previs tools used for breaking sequence based work in to shots & for constructing Previs environments aka assemblies or locations.
- Created & maintained many of the studio's Rez environment packages, ensuring a consistent user experience throughout the production's crew.
- Answered artist help requests.

Technical Director   **4/2016 - 9/2019**
DreamWorks Feature Animation, Glendale, CA.
- Served as the main Technical Director for a stereoscopic hybrid feature film consisting of 3D animation & live action elements. I handled the technical needs of Previs, Editorial, Final Camera & Incoming Deliveries as well as answered their help requests.
- Provided solutions for the 3D Modeling / 3D Visual Development department's technical needs & handled technical requests from downstream departments.
- Continuously updated the studio's 3D asset management tool & modules which handled browsing, loading, validating & publishing many types of asset data. The tool was used by Previs, Layout, Modeling, Surfacing & Cloth departments.
- Optimized critical production processes related to converting UV layouts by utilizing the Maya C++ API instead of Mel or Python, reducing processing time by 95%.
- Identified multiple areas in the 3D asset pipeline related to procedural tree generation & Alembic GPU cache creation where steps were taking too long & utilizing too much memory. I wrote python optimizations & wrote validations to scan for common artist mistakes, reducing processing time by 75% during the generation of tall trees & eliminated crashing when exporting a complex asset's Alembic GPU cache.
- Contributed to the adoption of a USD based pipeline by creating modules which published Universal Scene Description (USD) schema & USD geometry representations of production 3d assets & tree data.
- Created a suite of Arnold rendering tools which eased the burden of processing xGen grooms, created automated asset turntables, provided a light rig definition & sharing system & for exporting Maya Arnold files as Arnold Scene Source files which were sent to our render farm.

Production Technology Software Engineer   **2/2011 - 6/2014**
DisneyToon Studios, Glendale, CA.
- Worked with various teams to resurrect a dormant division.
- Met with department supervisors, listened to their production needs, presented possible solutions & oversaw implementation of the chosen solutions.
- Utilized Nuke's Python API to create & update a tool suite which formed the studio's Stereoscopic Film Balancing system. The tool processed all the stereo frames for the studio's last 5 stereoscopic films.
- Reengineered the studio's Rush render farm system (distributed job processing) resulting in a highly available & reliable pool of 400 CPU cores.
- Served as main render wrangler & programed render farm submit libraries for the studios digital content creation programs.
- Wrote tools to analyze failed render farm tasks & insert plain english explanations which artists and crew members could understand, resulting in more cases where artists could fix the issue themselves rather than generate a help request.
- Implemented the usage of a package based environment manager to provide consistent process executions across the studio, resulting in a drastic decrease in IT help tickets & easing the debugging process.

Education

Bachelor Of Arts, Film Theory & Production. **6/2003**
University Of California at Santa Cruz, Santa Cruz, CA.

Associates Of Applied Science, Computer Programming **6/2016**
Baker College, Flint, MI.

My Website (contains software I've released to the public & links to Github)

https://www.adamchrystie.com