CONRAD EGAN

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EXPERIENCE

DreamWorks Animation *10.2015 - present | Glendale, CA*
Software Engineer - Shading R&D

Designed and implemented C++ and ISPC libraries for the new core rendering software including a color space library, involving mathematical derivations.

Wrote C++ and ISPC map and material shaders for a physically based renderer that matched the project's framework and conventions.

Collaborated with team and artists to develop shading tools to meet production needs of achieving a certain look while still being user friendly.

Discovered a fundametal flaw in the base material and helped develop a solution. Also improved the speed of the noise library by 35x.

DreamWorks Animation *6.2015 - 9.2015 | Glendale, CA*
Shading R&D Intern

Developed camera utility shaders after meeting with artists that allowed production to render fur geometry 20% more efficiently.

Debugged shots for artists in proprietary 3D production software and fixed bugs in shaders that were halting production.

Texas A&M University *1.2014 - 5.2015 | College Station, TX*
Graduate Research Assistant

Project Overview: This NSF funded research project (1) develops principled algorithms for optimized integration of real and virtual elements in mobile AR based on user-attention (2) examines alternate AR interfaces which direct user attention (through a combination of eye-tracking and augmented elements) and (3) pursues novel, real world applications.

Designed interactive experiments in Unity and administered the experiments to participants to gauge the efficacy of reducing visual clutter of labeled objects through interactive eye tracking.

Analyzed data with MATLAB and modified initial experiment designs to try and find the scenarios that benefit most from eye tracking.

DreamWorks Animation *6.2014 - 8.2014 | College Station, TX*
Summer Program
Modeling and Rendering Lead, FX co-Lead

Created a 30 second animated short titled "H2OH NO!" about a robot that lands on another planet to collect water and then encounters an obstacle. Worked with 4 other students under the advisement of DreamWorks Animation.

Created multiple FX shots with Houdini, designed and modeled the main character and environment with Maya and ZBrush, and composited shots and FX in Nuke. Contributed to story development, visual development, and animation as well.

Pitched concepts and works in progress to artists at DreamWorks twice a week. Learned how to steer critiques to get the needed feedback.

Texas A&M University *8.2013 - 12.2013 | College Station, TX*
Graduate Teaching Assistant

Provided one-on-one critiques of student work and provided technical help during studio sessions.

Graded and provided feedback on graphic design, video game, and visual effects course projects.

Jet Propulsion Labs / Caltech *6.2013 - 8.2013 | Pasadena, CA*
Interactive Data Visualization Intern

Realized visualization solutions for our clients, researchers at Caltech and JPL, through weekly meetings to understand their research objectives and through iterations from paper prototypes to live interactive data visualizations.

Developed front end 3D graphics with JavaScript and three.js for a WebGL powered interactive web application that visualizes brain region connectivity.

Implemented edge bundling algorithm on hierarchical graph to vastly improve readability of brain region connections.

SKILLS

Programming

C++	JavaScript
Java	ISPC
Python	Processing
HTML	CSS
three.js	WebGL
OpenGL GLSL	D3.js

Software

Maya, mental ray	Photoshop
Mudbox	Houdini, Mantra
Nuke	Illustrator
ZBrush	AfterEffects
3ds Max	Git
JIRA	MATLAB

Operating Systems

Linux	Mac OS X
Windows	

EDUCATION

Texas A&M University
MS Visualization
8.2013 - 5.2015
GPA 3.921

University of California, Los Angeles
BA Design Media Arts 2013
GPA 3.858

AWARDS

IPAX Sande Scoredos Memorial Scholarship, 2015
Sony Pictures Imageworks

DreamWorks Animation Scholarship, 2014
Department of Visualization at Texas A&M University

Departmental Honors Scholarship, 2013
Department of Visualization at Texas A&M University

UCLA Regents Scholar, 2009
Regents of the University of California

PUBLISHED WORK

Investigating the Use of Eye-Tracking for View Management, 2014
ACM SIGGRAPH 2014 Research Posters
Ann McNamara, Laura Murphy, Conrad Egan

Deconstructing wall turbulence - visualization of resolvent modes, 2013
Gallery of Fluid Motion of the 66th Annual Meeting of the APS-Division of Fluid Dynamics
Daniel Barella, Sarah Churng, Conrad Egan, et al.