Steven Dao

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Education

The University of Texas at Austin
BA Computer Science and Philosophy (GPA: 4.0)   May 2015

Experience

DreamWorks Animation — Glendale, CA
Motion Capture Intern   June–Aug 2014
- Wrote C++ tools and Python scripts for transferring motion-capture character animation from FBX files into Premo, the studio's proprietary animation software
- Adapted textures and UVs for lower-res versions of production characters used in mocap studio, and improved quality and performance of Cg fur shader used in MotionBuilder
- Trained and calibrated motion-capture actors' facial tracking profiles using Faceshift marker-less facial tracking software
- Developed a MotionBuilder plugin to integrate external lip-sync animation into pipeline

Google — Cambridge, MA
Engineering Practicum Intern   May–Aug 2013
- Helped design and test a Java web app in Google App Engine and Google Web Toolkit for searching and filtering airline passenger and flight messages
- Developed algorithms for sorting and combining large datasets of messages in parallel using Google App Engine Datastore, a NoSQL database system
- Wrote engineering design documents, prepared documentation, and wrote unit tests

Texas Student Television — The University of Texas at Austin
Good Morning Texas Show Technical Supervisor   Jan 2013–Present
- Set up and troubleshot equipment used in live productions, from audio to teleprompter
- Taught video editing and production to new volunteers in the news department

SnapStream Media — Houston, TX
Software Developer Intern   May–Aug 2012
- Worked in a team to re-architect a "TV search" web application in ASP.NET MVC
- Developed web app using C#, JavaScript, HTML, CSS, and Microsoft SQL Server

Tech & Skills

C ▪ C++ ▪ C# ▪ Java ▪ Objective-C ▪ Python ▪ Bash Scripting ▪ OpenGL Shading (GLSL)

Maya (plus MEL Scripting and C++ SDK) ▪ **3ds Max** (plus C++ SDK) ▪ **MotionBuilder** (plus Python and Open Reality SDKs) ▪ **Houdini** ▪ **Photoshop** ▪ **Flash** ▪ **Illustrator**

Native Vietnamese proficiency and working knowledge of French

Projects

Micropolygon/Reyes Rasterizer (Scala)   2014
- Developed a micropolygon renderer supporting parallel rendering, Bézier patches, displacement, lighting, shadow maps, and programmable shaders

Wave and Fur Graphics Simulation Software (C++)   2013-2014
- Built Maya and Max plugins for ocean waves with collisions (based on Tessendorf paper)
- Wrote a real-time fur and grass OpenGL demo using the "shells" rendering technique