



DIAN XIANG

TECHNICAL • ART • DESIGN

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■ SKILLS

- Rigging and creating tools for artists using Houdini's procedural workflow
- Creative art background using Illustrator/Photoshop, Houdini, and Unity
- Technical experience using C/C++, Java, C#, D3.js, CSS/Javascript, Git, SVN
- 3D graphics experience working with Direct3D, and OpenGL, ThreeJS, WebGL

■ WORK EXPERIENCE

Technical Artist / 3D Software Developer • SideFX Software • Toronto, Ontario • May 2016 - Present, 2015 (4 months)

- Designing and building character tools for Houdini using Python, HScript and procedural network
- Rigging in-house characters and prototyping new tools and character work flows for Houdini 16
- Researched and developed different deform techniques for 3D animation using C++ on Linux
- Optimized processing time of geometry operators on the GPU using OpenCL

Software Engineer Intern • Google • Mountain View, California • Aug 2015 - Dec 2015

- Developed for open source ANGLE project, Chrome's WebGL backend for Windows in C++
- Improved performance of WebGL, the 3D graphics engine in Chrome on Windows

Full Stack Engineer Intern • Palantir Technologies • Palo Alto, California • Apr 2014 - Sep 2014

- Developed UI features a high performance geospatial analysis platform using Java, Coffeescript, Less.
- Researched and built improved label placement strategy without visual collisions
- Worked with design team to create dynamically colorable features in Java

Design and Engineering Intern • Tinfoil Security • Palo Alto, California • Aug 2013 - Dec 2013

- Designed, developed and launched the core data visualization library using D3.js and Coffeescript
- Developed an automated screenshot service using Node.js and Phantom.js

Software Engineering Intern • Qualcomm • Markham, Ontario • Jan 2013 - Apr 2013

- Architected generation of 3D fractal shapes for graphics API using Direct3D and OpenGL ES
- Reversed engineered Direct3D's hardware tessellation on the CPU and GPU for higher LOD
- Created fractals by manipulating 3D meshes and texture in C/C++ with Visual Studio

■ EDUCATION

Bachelors of Software Engineering • Honours Software Engineer, University of Waterloo • Sep 2011 - Apr 2016

Undergraduate Research Assistant • Apr 2015 - Feb 2016

- Researched techniques and uses for non-constant knots in tensor product b-splines

Computer Graphics Graduate Courses • Sep 2014 - Sep 2015

- Physically-based Animation - Built fracturing simulation using ThreeJS using Voronoi fracturing methods
- Non-Photorealistic Rendering - R&D in NPR : toon shading, real-time hatching, and celtic knots
- Computer Graphics - Created a rendering engine with ray tracing using C++ and Lua

■ PROJECTS

WebGL Insight • Sep 2015 - Present

- Open source debugging toolkit for WebGL development
- Over 600+ stars: www.github.com/3Dparallax/insight

Mobile / Web Design • May 2012 - Jun 2016

Terrain Visualizer • Jan 2013 - Mar 2013

■ INTERESTS



climbing



animation



visual arts



acrobatics



music composition