# Prutsdom (Nop) Jiarathanakul

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## Employment

**Autodesk · San Francisco, CA · Principle Graphics Engineer**    October 2014 – present
- Architect and implement high-performance real-time WebGL engines and file formats to deliver high-quality 3D content over the web.
- Perform as technical lead and maintain full-stack tech from server-side content management to client-side graphics engine.

**Storm8 · Redwood City, CA · Graphics Engineer**    September 2013 – October 2014
- Write high-performance code for the mobile game engine and create tools to facilitate the asset pipeline.
- Prototype, build, and support games in Unity along with designing related frameworks and the asset pipeline.

**DreamWorks Animation · Glendale, CA · Technical Director Intern**    June – August 2012
- Wrote customized tools to support other technical directors and the animation pipeline.

**Electronic Arts · Redwood City · Software Engineer Intern**    May – August 2011
- Implemented texture encoding, compositing, and blending operations in the game graphics engine to improve performance.

**PennApps Labs, University of Pennsylvania · Senior Front-End Developer**    November 2010 – May 2013
- Work with a team of student developers to build online web app solutions for students at UPenn.

**Kantana Animation Studio · Bangkok, Thailand · Technical Artist Intern**    June – August 2010
- Wrote customized tools to support artists and the animation pipeline.

**University of Pennsylvania · Teaching Assistant**    January – May 2010
- Taught Java sections of over 20 students, designed weekly assignments, and assisted the professor with student assessments.

**Lowe Limited · Bangkok, Thailand · Graphic & Web Design Intern**    June – July 2009
- Worked closely with an artist and a database programmer to develop promotional sites for clients.

## Education

**University of Pennsylvania · Philadelphia, PA**    Graduated: August 2013
Dual Degree, School of Engineering & Applied Sciences and the Wharton School
Master of Science in Engineering in Computer Graphics and Game Technology    Graduate GPA: 3.97/4.00
Bachelor of Science in Engineering in Digital Media Design (computer science program with a focus in graphics)    Undergraduate GPA: 3.69/4.00
Bachelor of Science in Economics, Concentration in Marketing

**Relevant Coursework:** Graphics Programming, GPU Programming & Architecture, Physically Based Rendering, Physically Based Animation, Data Structures and Algorithms, Theory of Computation, Computer Architecture, 3D Modeling, Game Design, Typography, Graphic Design

## Projects

**WebGL GPU Particle Simulator · Javascript, WebGL, GLSL**    April 2014
- Side project. Interactive WebGL particle simulation driven by GLSL shaders. Able to simulate 1 million particles at 60 fps.

**CUDA Path Tracer · C++, CUDA, OpenGL**    August 2013
- Interactive real-time iterative global illumination path tracer in CUDA.

**Voxel Cone-Tracing Real-time Renderer · C++, OpenGL, GLSL**    December 2012
- Independent study team project. Based on voxel cone-tracing method described in Crassin's "GigaVoxels" paper [Cra11].

**CodeDJ Live! · Javascript, HTML, CSS, WebGL, GLSL**    September 2012
- Interactive GLSL live code sandbox with music input. Uses Audio Data API and Dropbox API. Completed for PennApps 48-hour hackathon.

**DroidXtend: Android 3D Controller · Java, Python, MEL**    January 2011
- Android app that turns the phone into a 3D view controller. Won "Best Android App" in the 2011 PennApps 48-hour hackathon.

## Technical Skills

**Programming:** Javascript, WebGL, GLSL, HTML, CSS, C++, C#, Obj-C, Python, MEL, Java, PHP, SQL

**Software:** Unity, Maya, Photoshop, Illustrator, InDesign