

# Prutsdom (Nop) Jiarathanakul

www.iamnop.com  
nop@iamnop.com  
215-948-2837

## Employment

### Bright Machines · San Francisco, CA · Principal Software Architect

November 2018 – present

- Architect and implement the software infrastructure that powers the Digital Twin, a 3D virtual environment for simulating industrial robots.
- Lead the development team to build and maintain the web application and microservices for software-defined manufacturing.

### Autodesk · San Francisco, CA · Principal Graphics Engineer

October 2014 – 2018

- 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

Bachelor of Science in Engineering in Digital Media Design (computer science program with a focus in graphics)

Bachelor of Science in Economics, Concentration in Marketing

Graduate GPA: 3.97/4.00

Undergraduate GPA: 3.69/4.00

**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

### 3D Web Fest · San Francisco, CA · Creative Director

2015 – 2017

- An annual celebration that showcases top WebGL experiences as live performance in a film festival format.

### 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.

## Technical Skills

**Areas of Expertise:** WebGL, Three.js, real-time rendering, 3D asset pipeline, web development

**Programming:** Javascript, GLSL, HTML, CSS, C#, C++, Python, MEL

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