

# Shuai Shao

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## EDUCATION

### UNIVERSITY OF PENNSYLVANIA MSE IN COMPUTER & INFORMATION SCIENCE

Expected May 2017 | Philadelphia, PA  
Cum. GPA: 3.61

### SOUTHEAST UNIVERSITY BENG IN COMPUTER SCIENCE

June 2015 | Nanjing, China  
Cum. GPA: 87 / 100

### UC BERKELEY

EXCHANGE STUDENT IN CS  
Fall 2014 | Berkeley, CA  
Cum. GPA: 4.0

## COURSEWORK

### GRADUATE

GPU Programming & Architecture  
• Distributed System • Internet & Web System • Machine Learning • Algorithm • Advanced Graphics Topics • Computer Animation • Game Dev • Data & Info System • 3D Modeling

### UNDERGRADUATE

Computer Graphics • Image Manipulation & Computational Photography • Hardware Design • Artificial Intelligence • Pattern Recognition • Compiler • Operating System • Numerical Analysis

## LINKS

[shrekshao.github.io](https://github.com/shrekshao)

[shrekshao](#)

[Shuai Shao](#)

## SKILLS

### TOPICS

Computer Graphics • Authoring Editors and Tools • GPU Programming • Gameplay • VR • Image Manipulation • Web Apps • Web System

### PROGRAMMING

C++ • CUDA • OpenGL • WebGL • JavaScript • AS3 • Python • MATLAB • Node.js • MySQL • MongoDB • MEL • Git • Hadoop • GRPC

### GAMES & MODELING

Unity3D • Unreal • Adobe Flash/AIR • Maya

## EXPERIENCE

### UNIVERSITY OF PENNSYLVANIA RA AT POLYHEDRAL STRUCTURES LAB

Jan 2017 – Present | Philadelphia, PA

- Develop web 3D interactive structural design tools based on reciprocal polyhedral diagrams.

### BIODIGITAL SOFTWARE ENGINEERING INTERN

May 2016 – August 2016 | New York, NY

- Work on Human WebGL Engine: Camera Navigation and Arbitrary cubic spline animation; Google Cardboard VR of Human Web Engine; Widget API Refactoring and JSDoc; Improved cross section with clipping caps;
- Work on SceneJS: Stencil Buffer; Clipping Cap plugin; Transparent Object list optimization try;

### UNIVERSITY OF PENNSYLVANIA TA OF GPU PROGRAMMING AND ARCHITECTURE

May 2016 – Dec 2016 | Philadelphia, PA

- Implement assignment framework code: CUDA path tracer and rasterizer with glTF support, WebGL Deferred and Forward+ Renderer
- Hold TA-lead recitations on GPU profiling practice and supplementary topics

### BAIDU SOFTWARE ENGINEERING INTERN

Feb 2015 – May 2015 | Beijing, China

- Use Python and Shell with Hadoop streaming to collect training data from search record for Game Zhixin to increase CRT
- Use C++ RPC to collect data from a shared data platform to fix the query data to increase CRT

## OPENSOURCE COMMUNITY CONTRIBUTION

### WEBGL 2 SAMPLES PACK

[WebGL2Samples](#)

One of the two main contributors. Gave a talk at GDC 2016 Khronos session and NYC WebGL Developer meetup. 100+ Stars.

### WEBGL 2 BASICS

[Real-Time Rendering Blog](#)

Technical blogs on moving WebGL 1 code to WebGL 2 with Eric Haines.

### SCENEJS

[scenejs](#)

Contribute the stencil buffer module and a clipping cap plugin.

## PROJECTS

### WEBGL & GLTF

- [WebGL-2-Samples-Pack](#)
- [Tiled-Forward-Plus](#)
- [Particle-Projector](#)
- [minimal-gltf-loader](#)
- [glTF-Emoji-Render-Plugin](#)
- [Deferred-Shader](#)

### GAMES & GRAPHICS

- [MechEmpire](#)  
C++, Unity3D, Flash, Ruby, AI agent programming game and online platform
- [Drag-n-Sword\(U3D\)](#)
- [GPU-Path-Tracer\(CUDA\)](#)
- [GPU-Rasterizer\(CUDA\)](#)
- [GPU-Unified-Particle-Sim\(OpenGL,CUDA\)](#)
- [Mech-Clash](#)  
U3D, Winner of EA Pathfinders Players' Choice Award at PennApps Hackathon XII.
- [100floors \(AIR\)](#)
- [Animation Sketcher \(Maya Plugin\)](#)