

Zhenglin Geng

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Education

PhD Student in Computer Science, Stanford

Sep 2016 - Present

Core Courses: CS229 (Machine Learning, A+)

B.S. of Eng. Tsinghua University, Beijing (Excellent Graduate Award)

Aug 2012 – July 2016

Major GPA: **93/100 (top 3)**, Major: **Computer Software**.

Core Courses: Data Structures and Algorithms (**top 1**), Operating System (**top 1**), Compiler, Database, Network, Architecture.

Research and Work Experience

Inequality Cloth (submitting to SCA2017)

Sep 2016 – Jan 2017

Advisor: **Ron Fedkiw**, Professor at Computer Science Department at Stanford

- Participated in the design of the algorithm which simulate deformable cloth by treating inextensibility as inequality constraints and solving the system using convex optimization techniques.
- In charge of modeling and rendering the demo scenes in our video.

Graphics Engineer at Hongyu Tech. (A VR startup company in Beijing)

May 2016- Aug 2016

- Participated in development of the graphics API on our VR system which will be used by future developers using our system (This system is an Android-based operating system whose frame latency can be as low as 16 ms).
- In charge of developing Unity plugin for our system and building our first product prototype.

Light Field Capture Using Hand-held Camera (Undergraduate thesis, Tsinghua)

Sep 2016 – June 2016

Advisor: **Hui Zhang**, Associate Professor at School of Software at Tsinghua University

- Built an Android program with which users can capture light fields by panning or rotating the camera and visualize the light fields in real time.
- Built the program using ARlib with an augmented sphere which will be gradually covered by small circles as the user moves the camera around the target object.

Composition-aware Video Cropping (Internship, Award of Excellence, Microsoft)

Oct 2015 – Jan 2016

Advisor: **Steve Lin**, Senior Researcher at **Microsoft Research Asia**

- Developed a program to generate videos with better composition by panning, scaling and rotating a cropping window over casually taken videos.
- Developed a method based on video segmentation and saliency detection to measure cropping quality.

Skill sets

Programming languages

- C++ (most familiar): some experience with STL and templates;
- Java: some experience with multi-threading, networking, Android development;
- Python: some experience with nltk (machine learning), Django (web development), scripting;
- Others: Javascript, C#, Haskell, scala, Lua, matlab, MASM Assembly.

Graphics: OpenCV, OpenGL/GLSL, DirectX 11/HLSL, Unity, Maya, Blender, Renderman;

Parallel computing: OpenMP, MPI, Spark, CUDA.

My home page <http://stanford.edu/~zhenglin/>.