

Xuan Li

Department of Computer Science,
State University of New York at Stony Brook, Stony Brook, NY, 11794

✉ xuanli2@cs.stonybrook.edu

☎ +1 (631) 202 8789

🌐 <https://xuan-li.github.io>

🌐 <https://github.com/xuan-li>

EDUCATION

State University of New York at Stony Brook

Ph.D. Candidate, Computer Science

GPA: 3.9/4.0 Advisor: Xianfeng Gu

New York, U.S.

Sept 2017 – Present

Tsinghua University

B.S., Mathematical Sciences

Beijing, China

Aug 2013 – July 2017

RESEARCH INTERESTS

Computer Graphics, Geometry Processing, Computer Vision, Machine Learning

PUBLICATIONS

- Hui Zhao, **Xuan Li**, Huabin Ge, Na Lei, Min Zhang, Xiaoling Wang, Xianfeng Gu. 2018. *Conformal Mesh Parameterization using Discrete Calabi Flow*. Computer Aided Geometric Design (GMP 2018).
- Hui Zhao, Xianfeng Gu, Na Lei, **Xuan Li**, Peng Zeng, Ke Xu. 2017. *Robust Edge-Preserved Surface Mesh Polycube Deformation*. Pacific Graphics short paper.

RESEARCH EXPERIENCE

Adobe Research

Deep Learning Research Intern (Supervisor: Hailin Jin)

California, U.S.

May 2019 – Present

- Font Generation: explore representations of vectorized fonts and build generative model to generate good fonts.

State University of New York at Stony Brook

Research Assistant at 3D Scan Lab (Advisor: Xianfeng Gu)

New York, U.S.

May 2018 – Present

- Conformal Geometry: surface parameterizations, surface foliations, Teichmüller maps.
- Optimal Transport: its numerical solutions and its applications in machine learning.
- 3D Facial Animation: use blendshape system to fit 3D/4D scans of faces.

Tsinghua University

Student Visitor at Natural Language Processing Group (Advisor: Yang Liu)

Beijing, China

Feb 2017 – June 2017

- Neural Machine Translation: end-to-end document-level translation using RNN/LSTM.

PROJECTS

Discrete Surface Foliations

Developed in Xianfeng Gu's lab

- Implemented an algorithm to compute foliations on meshes based on discrete holomorphic quadratic forms. The algorithm was proposed in Palmer's thesis: *Toward computing extremal quasiconformal maps via discrete harmonic measured foliations*.
- Proposed a new method to initiate foliations.

Surface Parameterization

Computer Graphics course personal project

Repository link: <https://github.com/xuan-li/GraphicsProject>

- Implemented three **SIGGRAPH** papers: *Orbifold Tutte embeddings*, *Hyperbolic Orbifold Tutte Embeddings*, and *Boundary First Flattening*.

Blendshape Generator

Developed in Xianfeng Gu's lab

- Implemented a blendshape generation system based on a **SIGGRAPH** paper: *Example-based facial rigging*.
- Improved the algorithms for the deformation transfer and the blendshape reconstruction from triangle gradients.

SbuSocks

Computer Networks course group project

Repository link: <https://github.com/caitaozhan/CSE534-Project>

- Implemented a kind of SOCKS5 proxy.
- Mainly responsible for the socket programming.
- One of the best course projects.

SKILLS

- Programming Languages: C++, Python, Matlab
- Libraries: OpenGL, OpenMesh, libigl, OpenCV, PyTorch, TensorFlow
- Tools: CMake, Visual Studio, Bash