

XI HAN

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Website: <https://axihixa.github.io/>

EDUCATION

Department of Computer Science, Stony Brook University

Aug 2019 – Present

Ph.D. in Computer Science (In progress, expected Spring 2026) | GPA: 3.9/4.0

Department of Computer Science and Technology, Tsinghua University

Aug 2015 – Jul 2019

B.E. in Computer Science | GPA: 3.25/4.0

PUBLICATIONS

- **Xi Han**, Fei Hou, Hong Qin, “UGrid: An Efficient-And-Rigorous Neural Multigrid Solver for Linear PDEs”, In Proceedings of the *Forty-first International Conference on Machine Learning (ICML)*, 2024.
- Song-Hai Zhang, Ruilong Li, Xin Dong, Paul Rosin, Zixi Cai, **Xi Han**, Dingcheng Yang, Hao-Zhi Huang and Shi-Min Hu, “Pose2Seg: Detection Free Human Instance Segmentation”, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2019.

WORK EXPERIENCE

Computer Graphics Lab

Stony Brook University | Research Assistant | Teaching Assistant

Aug 2019 – Present

Advisor: Hong Qin, Professor at Department of Computer Science, Stony Brook University

- Conducted research in intelligent modeling. Involved concepts: differentiable vector graphics, PDE-based modeling, etc.
- Implemented advanced research projects. Involved techniques: PyTorch CUDA extension, GPU-based PDE solvers, etc.
- Host lectures on C++/OpenGL programming and implementation details of computer graphics applications/algorithms.

Computer Graphics and Animation Lab

University of Texas at Dallas | Research Assistant

Sep 2018 – Nov 2018

Advisor: Xiaohu Guo, Professor at Department of Computer Science, University of Texas at Dallas

- Worked on the 3D face reconstruction project with Samsung, applying convolutional neural networks in PyTorch.
- Configured a Linux workstation for deep learning purposes from zero and deployed neural network models on it.
- Constructed a human face model dataset for further research purposes.

Graphics and Geometric Computing Group

Tsinghua University | Research Assistant

Jan 2017 – Jul 2019

Advisor: Song-Hai Zhang, Professor at Department of Computer Science and Technology, Tsinghua University

- Deployed a MobileNet module on IOS platform and completed graphic algorithms for a human segmentation application.
- Optimized the model used in the app (increased accuracy and added key point recognition) and speeded it up.

SKILLS

- Computer programming, computer graphics, machine learning, and Linux system skills.
 - ❑ Expertise in programming languages: C/C++ (OOP, STL, Metaprogramming, and Concurrency), CUDA, and Python.
 - ❑ Expertise in frameworks: PyTorch (including C++/CUDA extensions) and OpenGL.
 - ❑ Other proficiencies in languages: Bash/CMake, MATLAB, Java, Objective C/C++, Swift and Assembly.
- Language Proficiencies:
 - ❑ Chinese (Native speaker)
 - ❑ English (Proficient Work. TOEFL: 106/120; GRE: 324 + W 3.5)
 - ❑ Japanese (Basic Work. JLPT: N1 173/180, N2 169/180)