

Jiajun Lu

Basic Information

University of Illinois, Urbana-Champaign

Homepage: <http://www.jiajunlu.com>

Mentor: David Forsyth (Fulton Watson Copp Chair)

Research Area: Vision, Graphics

Contact

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Education Background

PhD Candidate in Computer Science, UIUC 2013 - 2018

Graduate GPA: 3.96/4.0

Bachelor of Computer Science, Zhejiang University 2009 - 2013

Undergraduate MAJOR GPA: 3.98/4.0 RANK: 1 / 180

IEEE student member, ACM student member

Publications

Publication:

- CDVAE: Co-embedding Deep Variational Auto Encoder for Conditional Variational Generation. **Jiajun Lu**, Aditya Deshpande, David Forsyth. Arxiv, CVPR 2017, Submitted.
- Learning Diverse Image Colorization. Aditya Deshpande, **Jiajun Lu**, Mao-Chuang Yeh, David Forsyth. Arxiv, CVPR 2017, Submitted.
- Hybrid HFR Depth: Fusing Depth and Color Cameras for High Speed, Low Latency Depth Camera Interactions. **Jiajun Lu**, Hrvoje Benko, Andy Wilson. SIGCHI 2017, **BEST PAPER NOMINEE**.
- A Visual Representation for Editing Face Images. **Jiajun Lu**, Kalyan Sunkavalli, Nathan Carr, Sunil Hadap, David Forsyth. Arxiv, To TPAMI.
- Sparse Depth Super Resolution. **Jiajun Lu**, David Forsyth. CVPR 2015.
- Splitter: Mining Fine-Grained Sequential Patterns in Semantic Trajectories. Chao Zhang, Jiawei Han, Lidan Shou, **Jiajun Lu**, Thomas La Porta. Very Large Data Bases 2014 (VLDB).
- Semi-supervised Mesh Segmentation and Labeling. **Jiajun Lv**, Xinlei Chen, Jin Huang, Hujun Bao. **Computer Graphics Forum**, 31 (7), 2012. Pacific Graphics 2012.
- Undergraduate Thesis "Component Morphing Based Shape Synthesis".

Research Projects

UIUC: David Forsyth (Fulton Watson Copp Chair)

- Deep Generative Models 2016/08-Present
Design deep learning algorithms for conditional variational generation tasks, such as image reshading, image resaturation, image recolor, and motion prediction.
- Google Project Soli(www.google.com/atap/project-soli/) 2015/01-Present
Cooperated project with Google. Working on machine learning algorithms for gesture recognition, and turning Soli sensor into depth sensor with vision learning algorithms.
- Face Image Editing 2015/06-Present
Cooperated project with Adobe Research. Working on face editing framework, such as makeup transfer, face relighting and face detail editing.
- Depth Super Resolution 2013/12-Present
Improve the spatial depth image quality from depth cameras.

UIUC: John C. Hart

- Insects Stereo Reconstruction 2013/08-Present
Reconstructing 3D models of various insects using photos from multiple angles.

Microsoft Research Redmond: Andy Wilson (Principal Researcher & Manager)

- Hybrid HFR Depth 2016/05-2016/08
Fusing Depth and Color Cameras for High Speed, Low Latency Depth Camera Interactions.

Adobe Research: Nathan Carr (Principal Researcher & Manager), Kalyan Sunkavalli, Sunil Hadap
• Human Face Reconstruction 2015/05-2015/08
Reconstruct 3D human face model from a single image.

Nokia Here Research: Matei Stroila (Research Manager)
• 3D Building Reconstruction 2014/05-2014/08
3D Building Reconstruction from Radar Data from Street Vehicle

CAD&CG, Zhejiang Univ: Prof. Evangelis Kalogerakis (Umass, Amherst) and Prof. Jin Huang
• Component Morphing Based Shape Synthesis 2012/08-2013/08
My undergraduate thesis project. Combine probabilistic graphics model with component morphing to create reasonable and abundant shapes.

Microsoft Research Asia: Qinwei Lin (Researcher) and Jianguang Lou (Senior Researcher)
• Inference Graph Based Performance Diagnosis 2012/09-2013/04
Analysis the Microsoft online service log information using data mining methods and inference graph. Aim to find the root cause of system delay.

Computer Science, UCLA: Prof. Wesley W. Chu (Distinguished Professor)
• PhenoWikiPlus 2012/07-2012/09
Join the CoBase Laboratory of **UCLA** Computer Science Department and focus on the development of PhenoWikiPlus system (<http://phenowiki.cs.ucla.edu>), which is designed for building the neuroscience knowledge base and search engine.

CAD&CG, Zhejiang Univ: Prof. Hujun Bao (Laboratory Director) and Prof. Jin Huang
• Mesh Segmentation 2012/02-2013/08
Work on using artificial intelligence into mesh segmentation and already have a paper of the Pacific Graphics Conference as the first author.
• Point Cloud Reconstruction 2011/08-2012/01
Quickly realized several ACM SIGGRAPH papers and proposed a new algorithm for 3D mesh feature extraction, which achieves a significant improvement.

Selected Honors and Awards

Scholarships & Honors:

- **Saburo Muroga Endowed Fellowship**, UIUC CS 2013/09
- **Chu Kechen Scholarship** (12/20000), Highest Honor in Zhejiang University, Included in School History 2012/10
- **Cross-disciplinary Scholars in Science and Technology** (Only 2 Computer Science Students Selected from 10 Best Universities in China), UCLA 2012/09
- National Scholarship in China (Top 1.5%) 2010/10 & 2011/10
- He Zhijun Scholarship (1/370+, Highest Honor in CS) 2012/04

Awards & Prizes:

- Meritorious Winner, America Mathematical Contest in Modeling 2012/04
- Silver Medal, Asia Regional Jamborees, iGEM 2012/10
- 1st Prize, Zhejiang Province Higher Math Contest 2010/11
- 1st Prize, Zhejiang Province Innovation Physics Contest 2010/12

Technical Skills

- Programming: C++, C, C#, Python, Java, Matlab, Javascript, PHP
- Language: Fluent English, Native Chinese, Beginner Korean