Yang Yuting

Rice Hall, University of Virginia, Charlottesville, VA 22903

(215) - 588 - 0263

tinacher911107@gmail.com

RESEARCH INTERESTS

My research interest are in computer graphics and vision. My past work is on traffic monitoring from video surveillance. For my current Ph.D. career, I'm working on improving the efficiency when prototyping computer graphics algorithms, as well as optimization, including some compiler technologies.

EDUCATION

University of Virginia   Charlottesville, VA
Ph.D, Computer Science   Aug 2015 - now
- GPA: 3.97/4.00
- Advisor: Connelly Barnes
- My Ph.D. research is focusing on optimization for computer graphics algorithms. We developed a compiler that helps automatically translate Python code to optimized C code, based on heuristics in graphics programs. The runtime of our translated code usually beats manually written and parallelized C code, and it helps preserve the easy and expressiveness of dynamic languages, while still facilitates fast run-time performance.

University of Pennsylvania   Philadelphia, PA
M.S., Electrical Engineering   Aug 2013 - May 2015
- GPA: 3.93/4.00
- Thesis: Road Intersecting Monitoring from Video with 3D Reconstruction
- Advisor: Daniel D. Lee and Camillo J. Taylor
- My master thesis is on traffic monitoring from video surveillance, with a 3D reconstruction. We developed a technique that could track vehicles moving in multiple direction using a camera form a relatively low position, with distortion and perspective deformation. We also used the video to calculate each vehicle's position and size in the real 3D world.

Huazhong University of Science and Technology   Wuhan, P.R.China
B.S., Electronics and Information Engineering (EIE)   Sept 2009 - Jun 2013
- GPA: 3.67/4.00
- Thesis: Motion Detection from Video Surveillance
- Advisor: Hao Wen

ACADEMIC EXPERIENCES

Research Assistant   Aug 2015 - present
Computer Science department, **University of Virginia**
- Developed a compiler that helps fast prototyping graphics and vision programs using Python.
- Advisor: Connelly Barnes

Research Assistant   Jun 2014 - May 2015
GRASP Lab, **University of Pennsylvania**

- Developed vehicle counting algorithms to track and count vehicles in a road intersection in complex situations.

- Advisor: Daniel D. Lee

Research Intern   Jul 2012 - Aug 2012

Research and Development Department, **Sohu Inc.**

- Researched and summarized about the existing distributed file system.

- Supervisor: Dong Wu

TEACHING EXPERIENCES

Teaching Assistant   Fall 2015 and Spring 2016

C.S. 2150

Program and Data Representation

Teaching Assistant   Fall 2015

C.S. 5012

Foundations of Computer Science

Teaching Assistant   Spring 2016

C.S. 2102

Discrete Mathematics I

PUBLICATIONS

VizGen: Accelerating Visual Computing Prototypes in Dynamic Languages

Yuting Yang, Sam Prestwood, Connelly Barnes

ACM SIGGRAPH Asia 2016

Road Intersection Monitoring from Video with 3D Reconstruction

Yuting Yang, Camillo J. Taylor, Daniel D. Lee

Intelligent Transportation Systems America 25th Annual and EXPO, June, 2015