

**He Yi** Male | 1987-03-09 | (+86)18868105691 | [heyi.pub@gmail.com](mailto:heyi.pub@gmail.com) | <http://while2.github.io>

---

**Experience:**

2012.4 – <b>2015.3</b>	M.S in State Key Lab of CAD&CG, Zhejiang University, China
2009.6 – 2010.1	Fulltime developer in Virtuos Games, China
2005.9 – 2009.6	B.S in Software Engineering, Tongji University, China

---

**Skills:**

- ◆ Proficient in **C/C++**, Qt; Knowledgeable in C++11, Python.
  - ◆ Experienced with algorithm design/implementation based on research papers.
  - ◆ Familiar with **computer vision** and **image processing**.
  - ◆ Good team player, with leadership experience (a 6-students team) in Autodesk China 2008 Sumer Camp.
  - ◆ Fluent reading, written and oral English. (CET-6 scored 544)
- 

**Projects:**

- ◆ 'His' C++ Utility Library  
A C++ template utility library, providing 2d image abstraction and functional style iteration interfaces. Code available [here](#). Used in the following 3 projects.
- ◆ Non-rigid panoramic stitching  
In the research for surveillance systems, we use a mesh-based optimization framework, break down the traditional limits for panoramas and achieved state of the art performance on wide-baseline data sets. The work also includes a feature matching/editing tool and an interactive seamless composition program. Mainly implemented with C++, will be submitted to **IEEE TIP**.
- ◆ Image/Video Completion  
A part of our 2d-to-3d system. To fill the missing regions caused by parallax, I implemented a video completion algorithm based on my improved image completion method, and designed a hierarchical approach to significantly improve the performance of Poisson Fusion. This module was later used in a video editing system for object removal. Implemented in C/C++. **Patent pending**.
- ◆ Image-base Rendering  
Main part of a 3d photograph system. By capturing a video clip, we can provide smooth 3d view experience. We improved the traditional IBR framework by extracting and completing background, and fixed the boundary aliasing problem with alpha matting. Implemented in C++. **Patent pending**.
- ◆ Sid Meier's Pirates for Wii  
At Virtuos Games, I worked on a game project on Nintendo Wii, developed the bombarding, picklock and spyglass module, and a Wii remote vibration feedback system.