Yujian ZHENG (郑玉健)

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EDUCATION

Bachelor, Software Engineering   **2014.9-2018.06**
Harbin Institute of Technology(HIT), Weihai, School of Computer Science and Technology
GPA:84.97/100

EXPERIENCES

Research Assistant   **2018.7- Present**
Visual Computing and Machine Intelligence Research Center, HIT, Weihai, with *Dr. Pengbo BO*

Undergraduate Research Assistant   **2016.4-2018.6**
Visual Computing and Machine Intelligence Research Center, HIT, Weihai, with *Dr. Pengbo BO*

RESEARCH INTERESTS

My current research focuses on geometric modeling and computer aided design. And I am now working on the modeling of developable surface and its application. I also have broad interests in fabrication oriented geometric design and optimization, as well as more natural, convenient and intelligent human-computer interaction techniques in 3D modeling.

PUBLICATIONS

[4] Zhang X Q, Bo P B, **Zheng Y J**, Zhang C M. Cone Spline Surface Fitting (in Chinese). Accepted to *Chinagraph 2018* and recommended to *J Comput-Aid Desig Comput Graph*
[3] **Zheng Y J**, Bo P B. Quasi-developable Surface Construction Based on Boundary Curve and its Application in Ship Hull Design (in Chinese). *J Comput-Aid Desig Comput Graph*, 2018
[2] Piao D S, **Zheng Y J**, Bo P B. Volume Rendering with Adaptive Local Feature Enhancement (in Chinese). *CSIAM Geometric Design and Computing of China(GDC)*, Yantai, 2017
[1] Bo P B, Wang Z, Zhang C M, **Zheng Y J**. Developable Surface Reconstruction from Noisy Data with L0-norm Minimization (in Chinese). *Sci Sin Inform*, 2017

RESEARCH EXPERIENCES

Multi-Strip Developable Surfaces Representation and Optimization   **2018.6-Present**
Current Project
We proposed an optimization method for multi-strip developable ruled surfaces modeling. This method has the ability to eliminate the gap between adjacent patches. Our technical paper will be produced and submitted to *Computer-Aided Design* in a month.

Developable Surface in Ship Hull Design   **2017.12-2018.6**
Excellent Graduation Project in HIT
A design system based on developable surface for optimizing ship lines and hulls has been designed and implemented. Using this system, ship designers can design smooth ship lines with interactive operations and obtain quasi-developable ship hulls through optimization.

Developable Surface Construction between Two Boundaries   **2016.12-2017.8**

GDC 2017, Yantai, Oral Report

The subject is aimed to find a robust method which can construct a quasi-developable surface between two boundaries using several specific numerical optimization techniques. The phased results have been applied in ship hull design, which have been accepted by *J Comput-Aid Desig Comput Graph*.

Volume Rendering   **2017.7**

GDC 2017, Yantai, Oral Report

This work is an optimization of Volume Illustration which is a well-known method in volume rendering based on non-photorealistic rendering.

Developable Surface Reconstruction from Noisy Data   **2016.5-2016.11**

China CAD&CG 2016

We presented an innovative method for Developable Surface Reconstruction from Noisy Data. In this work, I implemented an optimization approach to smooth normal vector field of given model via L0-norm minimization.

PROFESSIONAL SKILLS

Standardized Test: IELTS(6.5)
Programming Languages: C/C++, Java
Libraries and Tools: HLBFGS, OpenGL, OpenMesh, GeometricTools, Eigen

AWARDS

Excellent Student, HIT   **2017**
National Inspirational Scholarship, Ministry of Education, China   **2016**