Yujian Zheng (郑玉健)

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EDUCATION

Bachelor, Software Engineering **83/100** **2014.9-present**
School of Computer Science and Technology, Harbin Institute of Technology

RESEARCH INTERESTS

My current research focuses on geometric modeling and computer-aided design. And I am now working on the modeling of developable surfaces and its application in ship hull design and manufacturing. I also have broad interests in 3D animation and virtual reality.

PUBLICATIONS

Zheng Y J, Bo P B. Quasi-developable Surface Construction Based on Boundary Curve and its Application in Ship Hull Design (in Chinese). Journal of Computer Aided Design & Computer Graphics (Accepted)
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, Yantai, 2017
Bo P B, Wang Z, Zhang C M, **Zheng Y J**. Developable Surface Reconstruction from Noisy Data with *L*0-norm Minimization (in Chinese). SCIENTIA SINICA Informationis, 2017, 47(4): 401-415

RESEARCH EXPERIENCE

Developable Surface Construction between Two Boundaries **2016.12-present**
This research project aims to find a robust method which can construct a quasi-developable surface between two boundaries using several specific numerical optimization techniques. Our current techniques have been applied to ship hull design, which have been accepted by Journal of Computer Aided Design & Computer Graphics.

Volume Rendering **2016.11-2017.5**
GDC 2017
Our work is an optimization of Volume Illustration which is a well-known method in volume rendering based on non-photorealistic rendering. We redefined the enhancement equation of opacity, which can make the enhancement of local feature clearer than existing approaches.

Developable Surface Reconstruction from Noisy Data **2016.5-2016.11**
China CAD&CG 2016
We present a novel method for Developable Surface Reconstruction from Noisy Data. In this work, I implement an optimization approach to smooth the normal vector field of a given model via L0-norm minimization.

PROFESSIONAL SKILLS

Programming Languages: C, C++, Java
Libraries and Tools: HLBFGS, OpenGL, OpenMesh, GeometricTools(Curve and Surface)

AWARDS

National Aspiration Scholarship, Ministry of Education, P.R.China **2016**