XIANG CHEN   CURRICULUM VITAE

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RESEARCH INTERESTS

My current research interests mainly include fabrication-aware design, image analysis/editing, shape modeling/retrieval and computer-aided design, but are not limited to these. Fundamentally, I am excited about all the topics with beautiful geometry.

WORK EXPERIENCE

2013.01 – present   **Assistant Professor**
Graphics and Parallel Systems(GAPS) Lab
State Key Lab of CAD&CG
College of Computer Science and Technology, Zhejiang University

2015.12 – 2016.12   **Visiting Scholar**
Columbia Computer Graphics Group
Dept. of Computer Science, Columbia University

2011.09 – 2012.01   **Visiting Student**
Geometric Modeling and Scientific Visualization Center, KAUST
Mentor: Prof. Niloy J. Mitra & Prof. Kun Zhou

2007.07 – 2007.10   **Research Intern: MSRA Stars of Tomorrow Internship Program**
Data Intelligence and Tools group of Microsoft Research Asia
Mentor: Lead Researcher Min Chu

EDUCATION

2004 – 2012   **Ph.D. in Computer Science**
State Key Laboratory of CAD&CG, Zhejiang University
Thesis: Assembly Search based Top-Down Product Design
Advisor: Prof. Shuming Gao

2000 – 2004   **B.Sc. in Computer Science**
Mixed Class in Chu KoChen Honors College (top 5% students), Zhejiang University
Thesis: Synchronized Collaborative Design within Heterogeneous CAD Systems
Advisor: Prof. Shuming Gao

PUBLICATIONS

Automatic Synchronization of a Feature Model with Direct Editing based on Cellular Model
Jun Fu, Xiang Chen, Shuming Gao
Computer-Aided Design and Applications (2017)

Support-Free Interior Carving for 3D Printing
Yue Xie, Xiang Chen
Visual Informatics (2017)

Example-Based Subspace Stress Analysis for Interactive Shape Design
Xiang Chen, Changxi Zheng, Kun Zhou
IEEE Transactions on Visualization and Computer Graphics (TVCG 2016)

Deployable 3D Linkages with Collision Avoidance
Changxi Zheng, Timothy Sun, Xiang Chen
ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA 2016) `Best Paper Award`

View-Aware Image Object Compositing and Synthesis from Multiple Sources
Xiang Chen, Weiwei Xu, Sai-Kit Yeung, Kun Zhou
Journal of Computer Science and Technology (Special Section of CVM), Volume 31 (2016)

Continuous Optimization of Interior Carving in 3D Fabrication
Yue Xie, Ye Yuan, Xiang Chen, Changxi Zheng, Kun Zhou
Frontiers of Computer Science (2016)

An approach to automatic adaptation of assembly models
Wanbin Pan, Shuming Gao, Xiang Chen
Computers in Industry, Volume 75 (2016)

Automatic shape adaptation for parametric solid models
Wanbin Pan, Xiang Chen, Shuming Gao
Computer-Aided Design, Volume 62 (2015)

An Asymptotic Numerical Method for Inverse Elastic Shape Design
Xiang Chen, Changxi Zheng, Weiwei Xu, Kun Zhou
ACM Transactions on Graphics, Volume 33 (SIGGRAPH 2014)

A deep learning approach to the classification of 3D CAD models
Feiwei Qin, Luye Li, Shuming Gao, Xiaoling Yang, Xiang Chen
Journal of Zhejiang University SCIENCE C, Volume 15 (2014)

A framework for collaborative top-down assembly design
Shuming Gao, Shuting Zhang, Xiang Chen, Youdong Yang
Computers in Industry, Volume 64 (2013)

Interactive Images: Cuboid Proxies for Smart Image Manipulation

Youyi Zheng, Xiang Chen, Ming-Ming Cheng, Kun Zhou, Shi-Min Hu, Niloy J. Mitra

ACM Transactions on Graphics, Volume 31 (SIGGRAPH 2012)

A flexible assembly retrieval approach for model reuse

Xiang Chen, Shuming Gao, Song Guo, Jing Bai

Computer-Aided Design, Volume 44 (2012)

Multi-level assembly model for top-down design of mechanical products

Xiang Chen, Shuming Gao, Youdong Yang, Shuting Zhang

Computer-Aided Design, Volume 44 (2012)

Feature suppression based CAD mesh model simplification

Shuming Gao, Wei Zhao, Hongwei Lin, Fanqin Yang, Xiang Chen

Computer-Aided Design, Volume 42 (2010)

Assembly retrieval in top-down product design

Xiang Chen, Song Guo, Jing Bai, Shuming Gao

Asian Conference on Design and Digital Engineering 2010

The skeleton in the multi-level assembly model for top-down innovation design of mechanical product

Xiang Chen, Shuming Gao, Youdong Yang, Shuting Zhang

International Conference on Product Lifecycle Management 2009

Agent based variation propagation for collaborative top-down assembly design

Shuting Zhang, Xiang Chen, Shuming Gao, Youdong Yang

ASME IDETC/CIE 2008

Feature suppression based CAD mesh model simplification

Shuming Gao, Wei Zhao, Fanqin Yang, Xiang Chen

IEEE International Conference on Shape Modeling and Applications 2008

A framework for collaborative top-down assembly design

Shuting Zhang, Xiang Chen, Shuming Gao, Youdong Yang

ASME IDETC/CIE 2007

Process modeling of top-down collaborative assembly design based on Petri net

Youdong Yang, Shuting Zhang, Xiang Chen

IEEE International Conference on Computer Aided Design and Computer Graphics 2007

A web service for exchanging procedural CAD models between heterogeneous CAD systems

Xiang Chen, Min Li, Shuming Gao

Lecture Notes in Computer Science, Volume 3865 (2006)

A divide-and-conquer algorithm for machining feature recognition over network
Shuming Gao, Guangping Zhou, Yusheng Liu, Xiang Chen
ASME IDETC/CIE 2005

A web services based platform for exchange of procedural CAD models
Xiang Chen, Min Li, Shuming Gao
International Conference on Computer Supported Cooperative Work in Design 2005

HONORS

2014	**Distinguished young scholar**
	Zhejiang University
2006	**Excellent Student Scholarship**
	College of Computer Science and Technology, Zhejiang University
2004	**Excellent Undergraduate Thesis**
	Zhejiang University
2004	**Excellent Student Scholarship**
	Mixed Class in Chu KoChen Honors College, Zhejiang University
2000	**First Prize of New Student Scholarship (top 4%)**
	Mixed Class in Chu KoChen Honors College, Zhejiang University
1999	**Second Prize in National Contest on High School Physics**
	Hangzhou High School
1999	**Third Prize in National Contest on High School Mathematics**
	Hangzhou High School

REVIEWERS

ACM SIGGRAPH (ASIA), IEEE TVCG, Pacific Graphics, Computer-Aided Design, The Visual Computer, Robotics and Computer-Integrated Manufacturing, Assembly Automation, Journal of Software, IEEE VR, GDC

LANGUAGES

Mandarin, English.