Xun Wang

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Kasza Living Materials Lab, Columbia University, New York, NY 10027, http://www.kaszalab.com

EDUCATION

Columbia University

- Ph.D. Candidate in Mechanical Engineering — 2020 (degree expected)
- M.Phil. in Mechanical Engineering (GPA: 3.9) — 2018
- M.S. in Mechanical Engineering (GPA: 4.0) — 2016

Shanghai Jiao Tong University (SJTU)

- B.S. in Mechanical Engineering and Automation (GPA: 3.8) — 2014
  ***Graduation with honor**: 2014 Excellent College Graduate of Shanghai*
- Second B.A. in German — 2014

PUBLICATIONS

- Aksit, D.N. Arteaga, M. Arriaga, **X. Wang**, H. Watanabe, K.E. Kasza, A.K. Lalwani, J. Kysar. *In-vitro* Perforation of the Round Window Membrane via Direct 3-D Printed Microneedles. Journal of Controlled Release. 2018. (Accepted)
- Zheng B., Yu H.D., **Wang X.**, Lai X.M. Effect of Surface Roughness and Residual Stress Induced by High Speed Milling Process on Short Crack Growth. ASME. International Manufacturing Science and Engineering Conference, Volume 2: Materials; Biomanufacturing; Properties, Applications and Systems; Sustainable Manufacturing. doi:10.1115/MSEC2016-8503. 2016.

CONFERENCE TALKS & POSTER PRESENTATIONS

- Jan. 18, 2019. **X. Wang**, K. E. Kasza. The role of cell-cell adhesion in tissue mechanics and morphogenesis (Talk). NCS10. Rutgers University, New Brunswick, NJ.
- Nov. 30, 2018. **X. Wang**, K. E. Kasza. The role of cell-cell adhesion in tissue mechanics and morphogenesis (Talk). 77th NECF. Harvard University, Cambridge, MA.
- July 8 - 12, 2018. **X. Wang**, K. E. Kasza. Systematically Modulating Cell-Cell Adhesion *in vivo* Reveals Mechanisms of Tissue Morphogenesis (Talk). The 8th World Congress of Biomechanics. Dublin, Ireland.
- May 25, 2018. **X. Wang**, K. E. Kasza. Cell-Cell Adhesion in Tissue Mechanics (Talk). NCS9. University of Pennsylvania, Philadelphia, PA.
- Jan. 02, 2018. **X. Wang**, K. E. Kasza. The Role of Cell-Cell Adhesion in Epithelial Tissue Remodeling (Talk). NCS 8. Columbia University, New York, NY.
- Dec. 02 – 06, 2017. **X. Wang**, K. E. Kasza. Systematically Modulating Cell-Cell Adhesion Reveals Cellular Mechanisms of Epithelial Remodeling in *Drosophila* (Poster). ASCB|EMBO 2017 Meeting. Philadelphia, PA.
- May 26, 2017. **X. Wang**, K. E. Kasza. Mechanics and Morphogenesis of Epithelial Tissues (Poster). NCS7. Princeton University, Princeton, NJ.
- March 23, 2017. **X. Wang**, K. E. Kasza. Mechanics and Morphogenesis of Epithelial Tissues (Talk). Columbia Biomechanics Seminar. Columbia University, New York, NY.
- June 27 – July 01, 2016. B. Zheng, H. Yu, **X. Wang**, X. Lai. Effect of Surface Roughness and Residual Stress Induced by High Speed Milling Process on Short Crack Growth (Talk). NAMRC|MSEC Conference 2016. Virginia Tech, Blacksburg, VA.

SELECTED PROFESSIONAL EXPERIENCES

Kasza Living Materials Lab, Columbia University, *Research Assistant* — New York, 2016-Present

Department of Mechanical Engineering, Columbia University, *Teaching Assistant* — New York, 2016
MECE E3038 Mechanical engineering laboratory, III

Advanced Manufacturing Lab, Columbia University, *Research Assistant* — New York, 2015

Institute of Automotive Engineering, SJTU, *Research Assistant* — Shanghai, 2014

General Motors Co. Ltd., *Process Engineer Intern* Shanghai, 2013
Engineering Training Center, SJTU, *Team Leader* Shanghai, 2012

SELECTED RESEARCH PROJECTS

Mechanics and Morphogenesis of Epithelial Tissues

Perforation of the Round Window Membrane via Direct 3-D Printed Microneedles

Collaboration with Prof. Jeffrey W. Kysar, *Small Scale Mechanics Laboratory, Columbia University.*

Kasza Living Materials Laboratory, Columbia University New York, NY
Prof. Karen E. Kasza Feb. 2016 - Present

Residual Stress Modeling of Selective Laser Melting

Advanced Manufacturing Laboratory, Columbia University New York, NY
Prof. Y. Lawrence Yao Sept. 2015-Jan. 2016

Methods of Evaluating Automatic Drilling & Riveting Quality and Mechanical Properties Based on Stress

National Engineering and Research Center for Commercial Aircraft Manufacturing Shanghai, China
Prof. Haidong Yu Nov. 2013-Feb. 2015

Analysis of Automatic Riveting with Different Structural Parameters

Undergraduate Thesis (Top 10%) Shanghai, China

Visual Guidance Smart Vehicle Based On Single Board Computer

National Undergraduates Innovation Program Shanghai, China

HONORS & AWARDS

- National Scholarship, China (**Top 1%** out of 460 undergraduates) 2012, 2013
- Kai Yuan Scholarship, China (**Top** student out of 460 undergraduates) 2012
- National Endeavour Scholarship, China (Top 5%) 2011
- Academic Excellence Scholarship (Second-class) of SJTU, China (Top 10%) 2011
- Yangtze River Siyuan Scholarship, China (Top 10%) 2011
- Student Leadership Award of SJTU, China 2012
- The First Prize of China High School Biology Olympiad (CHSBO), China 2009

SERVICES & CONTRIBUTIONS

- Vice Chair, Columbia University Interschool Governing Board (IGB) 2019-2020
- President, Columbia University Chinese Students and Scholars Association, USA 2018-2019
- Assistant Organizer, NCS8 Columbia Meeting, USA 2017
- Senior Vice President, Columbia University Chinese Students and Scholars Association, USA 2017-2018
- Secretary, Mechanical Engineering Graduate Association of Columbia, USA 2016-2017
- Director of HR Center, School Student Union, China 2010-2012
- Youth Volunteers Association of SJTU, China 2010-2011

  Volunteer of **Shanghai World Expo 2010** and **14th FINA World Championships**
- Vice President of "Pavilion & Museum Across Shanghai" Association of SJTU 2011-2012
- Co-Founder of "We Online" School Magazine 2011-2014

SKILLS

- **Computer:** MATLAB, ImageJ, Python, UG, ABAQUS, HyperWorks, Origin, ADAMS, HTML/CSS
- **Languages:** Mandarin (native), English (professional proficiency), German (medium proficiency)