

Jianzhe GU

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EDUCATION

Carnegie Mellon University, Pittsburgh, USA

Aug 2018 – present

- Ph.D. Candidate in **Human-Computer Interaction**, School of Computer Science
- Advisor: **Lining Yao**

Shanghai Jiao Tong University, Shanghai, China

Sept 2014 – July 2018

- Bachelor of Science in **Information Engineering**

COURSEWORK

Geometry and Simulation:

- Computer Graphics
- Numerical Methods for Engineering
- Discrete Differential Geometry

Machine Learning and Optimization:

- Introduction to Deep Learning
- Optimal Control & Reinforcement Learning
- Convex Optimization

PUBLICATIONS

- [1] An, B., Tao, Y., **Gu, J.**, Cheng, T., Chen, X.A., Zhang, X., Zhao, W., Do, Y., Takahashi, S., Wu, H.Y. and Zhang, T., 2018, April. Thermorph: Democratizing 4D printing of self-folding materials and interfaces. In Proceedings of the **2018 CHI** Conference on Human Factors in Computing Systems (p. 260). ACM.
- [2] Wang, G., Cheng, T., Do, Y., Yang, H., Tao, Y., **Gu, J.**, An, B. and Yao, L., 2018, April. Printed Paper Actuator: A Low-cost Reversible Actuation and Sensing Method for Shape Changing Interfaces. In Proceedings of the **2018 CHI** Conference on Human Factors in Computing Systems (p. 569). ACM.
- [3] Wang, G., Yang, H., Yan, Z., Gecer Ulu, N., Tao, Y., Gu, J., ... & Yao, L. (2018, October). 4DMesh: 4D printing morphing non-developable mesh surfaces. In *Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology* (pp. 623-635). **2018 UIST**
- [4] **Gu, J.**, Breen, D.E., Hu, J., Zhu, L., Tao, Y., Van de Zande, T., Wang, G., Zhang, Y.J. and Yao, L., 2019, April. Geodesy: Self-rising 2.5 D Tiles by Printing along 2D Geodesic Closed Path. In Proceedings of the **2019 CHI** Conference on Human Factors in Computing Systems (p. 37). ACM.
- [5] Narumi, K., Qin, F., Liu, S., Cheng, H.Y., **Gu, J.**, Kawahara, Y., Islam, M. and Yao, L., 2019, October. Self-healing UI: Mechanically and Electrically Self-healing Materials for Sensing and Actuation Interfaces. In Proceedings of the 32nd Annual ACM Symposium on User Interface Software and Technology (pp. 293-306). ACM. **2019 UIST**
- [6] Yu, Y., Liu, H., Qian, K., Yang, H., McGehee, M., **Gu, J.**, ... & Zhang, Y. J. (2020). Material characterization and precise finite element analysis of fiber reinforced thermoplastic composites for 4D printing. *Computer-Aided Design*, 122, 102817.
- [7] Yang, H., Qian, K., Liu, H., Yu, Y., **Gu, J.**, McGehee, M., ... & Yao, L. (2020). SimuLearn: Fast and Accurate Simulator to Support Morphing Materials Design and Workflows. In Proceedings of the **2020 CHI** Conference on Human Factors in Computing Systems. (Accepted)

REVIEWER

CHI 2019: Proceedings of the ACM Conference on Human Factors in Computing Systems. LBW

CHI 2019: Proceedings of the ACM Conference on Human Factors in Computing Systems.

UIST 2019: Proceedings of the ACM Symposium on User Interface Software and Technology.

SKILLS

Computer Languages: C/C++, Python, Javascript, Matlab, Java

Frameworks: OpenGL, Pytorch, Tensorflow, WebGL, Three.js, Grasshopper, Arduino

Fabrication: 3D Printing, Laser Cutting, CNC Milling, Machine Knitting