

Ren Li

BC 303, EPFL IC IINFCOM CVLAB, 1015 Lausanne, Switzerland

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Education

École polytechnique fédérale de Lausanne (EPFL)

PhD student in Computer Science

Advisor: **Prof. Pascal Fua**

Lausanne, Switzerland

Sept. 2021 - Current

Purdue University

MS in Electrical and Computer Engineering

- Overall GPA: 3.94/4.0

West Lafayette, U.S.

Aug. 2016 - May 2019

University of Science and Technology of China (USTC)

Bachelor of Electrical Engineering

- Overall GPA: 4.00/4.3, **Rank: 1/106**
- **Guo Moruo Scholarship (the most highly regarded honor by USTC)**

Hefei, China

Aug. 2012 - Jun. 2016

Publications

JOURNAL ARTICLES

- **Ren Li**, Jared S. Johansen, Hamad Ahmed, Thomas V. Ilyevsky, Ronnie B Wilbur, Hari M Bharadwaj, Jeffrey Mark Siskind, "The Perils and Pitfalls of Block Design for EEG Classification Experiments", **IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)**, 2020. 📄
- Srikrishna Karanam*, **Ren Li***, Fan Yang*, Wei Hu, Terrence Chen, Ziyang Wu, "Towards Contactless Patient Positioning", **Transactions on Medical Imaging (TMI)**, 2020. 📄

CONFERENCE PROCEEDINGS

- **Ren Li**, Corentin Dumery, Benoît Guillard, Pascal Fua, "Garment Recovery with Shape and Deformation Priors", **CVPR**, 2024. 📄
- **Ren Li**, Benoît Guillard, Pascal Fua, "ISP: Multi-Layered Garment Draping with Implicit Sewing Patterns", **NeurIPS**, 2023. 📄
- Luca De Luigi*, **Ren Li***, Benoît Guillard, Mathieu Salzmann, Pascal Fua, "DrapeNet: Garment Generation and Self-Supervised Draping", **CVPR**, 2023. 📄
- **Ren Li**, Benoît Guillard, Edoardo Remelli, Pascal Fua, "DIG: Draping Implicit Garment over the Human Body", **ACCV (Oral)**, 2022. 📄
- **Ren Li**, Meng Zheng, Srikrishna Karanam, Terrence Chen, Ziyang Wu, "Everybody Is Unique: Towards Unbiased Human Mesh Recovery", **BMVC (Oral)**, 2021. 📄
- Runze Li, Srikrishna Karanam, **Ren Li**, Terrence Chen, Bir Bhanu, Ziyang Wu, "Learning Local Recurrent Models for Human Mesh Recovery", **3DV**, 2021. 📄
- Georgios Georgakis*, **Ren Li***, Srikrishna Karanam, Terrence Chen, Jana Kosecka, Ziyang Wu, "Hierarchical Kinematic Human Mesh Recovery", **ECCV**, 2020. 📄
- **Ren Li***, Fan Yang*, Srikrishna Karanam, Terrence Chen, Haibin Ling, Ziyang Wu, "Robust Multi-modal 3D Patient Body Modeling", **International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI)**, 2020. 📄
- Liming Jiang, **Ren Li**, Wayne Wu, Chen Qian, Chen Change Loy, "DeeperForensics-1.0: A Large-Scale Dataset for Real-World Face Forgery Detection", **CVPR**, 2020. 📄
- Yijian Xiang, Lu Fang, **Ren Li**, N. M. Cheung, "Depth Error Induced Virtual View Synthesis Distortion Estimation for 3D Video Coding", **IEEE Data Compression Conference (DCC)**, 2015. 📄

PREPRINTS

- **Ren Li**, Corentin Dumery, Zhantao Deng, Pascal Fua, "Reconstruction of Manipulated Garment with Guided Deformation Prior", Arxiv, 2024. 📄

*Equal contribution.

Patents

- "Automating a medical environment", US Patent, 2023.

Work Experience

EPFL

Research Assistant

Lausanne, Switzerland

Sept. 2021 - Current

- *3D Garment Modeling*: Representing, draping and recovering garment with implicit functions.
- Advisor: **Prof. Pascal Fua**

United Imaging Intelligence

Research Assistant

Boston, MA, U.S.

Sept. 2019 - Mar. 2021

- *Human Mesh Recovery*: Recovering human pose and shape from RGB-D or RGB input under daily or medical environment for the contactless patient positioning system.
- Advisor: **Dr. Ziyang Wu** and **Dr. Srikrishna Karanam**

SenseTime

Research Intern/Part-time Researcher

Beijing, China

May 2019 - Feb. 2020

- *Face Forgery*: Building a large-scale dataset and a GAN-based model for face forgery.

Purdue University

Research Assistant

West Lafayette, IN, U.S.

Sept. 2016 - May 2019

- *EEG-Based Visual Classification*.
- *Visual Relationship Detection Based Video Retrieval*.

Gottfried Wilhelm Leibniz Universität Hannover

Research Assistant

Germany

Jan. 2016 - May 2016

- *Contact-Free Camera Measurements of Heart Rate*.
- Advisor: **Prof. Jörn Ostermann**

USTC

Research Assistant

Germany

Jun. 2014 - May 2016

- *Synthesis Distortion Estimation in 3D Video*.
- Advisor: **Prof. Lu Fang**

Awards & Honors

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|------|--|-----------------------------------|
| 2015 | Guo Moruo Scholarship (Top 1%)* | USTC |
| 2014 | National Scholarship (Top 2%) | Ministry of Education of China |
| 2014 | The Talent Program Scholarship (Top 3%) | USTC |
| 2013 | Institute of Electronics Scholarship (1/101) | Chinese Academy of Sciences (CAS) |

*Guo Moruo Scholarship is the first scholarship of P.R. China, and the most highly regarded honor by USTC students and alumni, in name of our first president Mr. Guo Moruo.

Academic Service

Reviewer CVPR, NeurIPS, ICCV, ECCV, ACCV, IEEE T-BIOM

Teaching Activities

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| Teaching Assistant | MATH-111: Linear Algebra. | 2022, 2023 |
| | CS-442: Computer vision. | 2022 |
| | CS-233: Introduction to machine learning. | 2023, 2024 |
| Student Supervision | Luca De Luigi, PhD student | |
| | Ali Raed Ben Mustapha, MSc student | |
| | Zhaobo Wang, MSc student | |
| | Xingchen Li, MSc student | |