

# JING WEN

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## EDUCATION

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**University of Illinois Urbana-Champaign, IL, United States**

08/2022 - present

*Ph.D. in Computer Science*

- Advisor: Prof. Shenlong Wang and Prof. Alexander Schwing

**Carnegie Mellon University, PA, United States**

08/2019 - 08/2021

*Master of Language Technologies (research-oriented)*

- Advisor: Prof. Katerina Fragkiadaki
- Thesis: Towards Unsupervised 3D Object Discovery and Tracking

**Tsinghua University, Beijing, China**

08/2015 - 07/2019

*Bachelor of Engineering in Computer Science and Technology*

- Thesis advisor: Prof. Xiaolin Hu and Prof. Jianmin Li
- Thesis: Improving Image Representations in Image Captioning

## RESEARCH INTERESTS

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3D vision with the focus on human rendering and reconstruction.

## PUBLICATIONS

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**Jing Wen**, Alex Schwing, Shenlong Wang. Generalizable Human Rendering with Learned Iterative Feedback Over Multi-Resolution Gaussians-on-Mesh. *In submission*.

**Jing Wen**, Xiaoming Zhao, Zhongzheng Ren, Alex Schwing, Shenlong Wang. GoMAvatar: Efficient Animatable Human Modeling from Monocular Video Using Gaussians-on-Mesh. *Conference on Computer Vision and Pattern Recognition (CVPR) 2024*. [[project page](#)][[arxiv](#)]

Adam Harley, Yiming Zuo\*, **Jing Wen**\*, Ayush Mangal, Shubhankar Potdar, Ritwick Chaudhry, Katerina Fragkiadaki. Track, Check, Repeat: An EM Approach to Unsupervised Tracking. *Conference on Computer Vision and Pattern Recognition (CVPR) 2021*. [[project page](#)][[arxiv](#)]

Han Liu, Shifeng Zhang, Ke Lin, **Jing Wen**, Jianmin Li, Xiaolin Hu. Vocabulary-Wide Credit Assignment for Training Image Captioning Models. *IEEE Transactions on Image Processing (TIP)*, 2021. [[pdf](#)]

## RESEARCH EXPERIENCES

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**University of Illinois Urbana-Champaign, IL, United States**

08/2024 - present

*Research Assistant*

- Advisor: Prof. Shenlong Wang and Prof. Sarita Adve
- Research project: Immersive teleconference for AR/VR.
- Aiming to develop a human-centered teleconference system that delivers an immersive experience for AR/VR applications.

**University of Illinois Urbana-Champaign, IL, United States**

08/2024 - present

*Research Assistant*

- Advisor: Prof. Shenlong Wang
- Research project: Human activity and scene understanding with IMU data from mobile devices.
- Aiming to reconstruct human daily activity and indoor scene with IMU data collected from mobile devices such as phones and smartwatches.

**University of Illinois Urbana-Champaign, IL, United States**  
*Research Assistant*

08/2022 - present

- Advisor: Prof. Shenlong Wang and Prof. Alexander Schwing
- Research project: Real-time rendering and reconstruction of animatable avatars.
- Proposed GoMAvatar, a real-time framework designed to render high-fidelity free-viewpoint images of a human performer, learned from a single input video. Accepted by CVPR 2024.
- Proposed to iteratively update the canonical representation with a feed-forward pass taking sparse inputs in a generalizable human rendering setting. Submitted to ICLR 2025.

**Princeton University, NJ, United States**  
*Research Assistant*

09/2021 - 05/2022

- Advisor: Prof. Jia Deng
- Research project: Multiview image super-resolution
- Proposed an approach for multiview image super-resolution which first hallucinates the high frequency details with single image and then correct the hallucinations based on multiview observations.

**Carnegie Mellon University, PA, United States**  
*Research Assistant*

01/2020 - 08/2021

- Advisor: Prof. Katerina Fragkiadaki
- Research project: Unsupervised 3D object discovery and tracking
- Proposed an Expectation-Maximization based approach for 3D unsupervised tracking. Our approach produces pseudo-labels for object discovery and tracking through agreement between modules and trains on them iteratively. Accepted by CVPR 2021.

**Tsinghua University, Beijing, China**  
*Research Assistant*

02/2019 - 07/2019

- Advisors: Prof. Xiaolin Hu and Prof. Jianmin Li
- Research project: Improving Image Representations in Image Captioning
- Proposed the Image-Text Transformation Module to bridge the gap between image and text modalities. The proposed approach shows improvement over several baselines, such as an improvement from 128.0 to 130.9 on the Transformer baseline.
- Helped with an approach that can efficiently assign a credit to each word in the *vocabulary* in actor-critic sequence training. This work is published in the IEEE Transactions of Image Processing (TIP).

## INTERNSHIP EXPERIENCES

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**Google Inc, Beijing, China**  
*Engineering Practicum Intern*

07/2017-09/2017

- Mentors: Mr. Keyi Gui and Mr. Wenshan Fu
- Project: Boq and Apps Framework based Mobile Harness Front End V5
- Assisted in maintaining Mobile Harness Front End V4, adding new features and fixing existing bugs.
- Designed and implemented the help section in Mobile Harness Front End V5. This section helps users to look up functions provided by various devices and select devices according to needs.
- Implemented a tool to help developers update documents of devices after every release.

## AWARDS

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- 2017** 1st Prize of Chinese Collegiate Programming Contest Woman Group (CCPC-W'2017)
- 2016** Award of Academic Excellence, with Tsinghua-SAMSUNG Scholarship
- 2014** 3rd Prize of National Olympiad in Informatics 2014 (NOI'2014)