

## Department of Computer Science



### Dr. Tianfei Zhou

Research Fellow  
Computer Vision Laboratory  
ETH Zurich, Switzerland

 **Date: 8 February 2023 (Wednesday)**

 **Time: 4:30pm – 5:30pm**

 **Registration: <https://bit.ly/cs-ereg>**

(\*Zoom details will only be provided to registrants)

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## Human-Centric Visual Computing

### **ABSTRACT**

Humans stand at the heart of our daily life. One of the central goals of artificial intelligence is to develop intelligent machines that empower people to achieve more. This requires machines to have the ability to (1) understand people's emotional and physical attributes, body behaviors, daily activities, (2) operate transparently, act equitably, respect the privacy and (3) eventually amplify and augment human capabilities in diverse social challenges, e.g., healthcare. In this talk, I will present my research towards a future of visual computing that puts people at the center. To begin with, I will talk about a structured perspective for representing visual elements so as to enhance fundamental visual capabilities of artificial agents. I will next present some recent studies towards understanding AI's behaviors and failure modes, which is critical for high-stage applications (e.g., healthcare, autonomous driving). Last, I will show the applications of my research in the domain of healthcare.

### **BIOGRAPHY**

Dr. Tianfei Zhou is currently a Research Fellow in Computer Vision Laboratory at ETH Zurich, Switzerland, working with Prof. Ender Konukoglu and Prof. Luc Van Gool. From 2019-2020, he was a Research Scientist in the Inception Institute of Artificial Intelligence, UAE. From 2017-2019, he was a Research Fellow at Lenovo Research, China. He received his Ph.D. degree at Beijing Institute of Technology in 2017. His current research interests are computer vision, machine learning, and medical image analysis. He has published 30+ papers in top-tier conferences (CVPR/ICCV/ECCV/MICCAI) and prestigious journals (TPAMI/TIP/MedIA), and the research results in leading algorithms that won champions on five international academic challenges. As first authorship, he won MedIA-MICCAI Best Paper Award in 2022, and WAIC Youth Outstanding Paper Nomination Award in 2021. He served as guest editors for IEEE TCSVT and Electronics.

## ENQUIRY