

Tiancheng Zhi

tiancheng.zhi@bytedance.com | tiancheng-zhi.github.io | linkedin.com/in/tiancheng-zhi-0ba198129

Education

Carnegie Mellon University <i>Ph.D. in Computer Science</i>	Aug. 2016 – Sep. 2021 Pittsburgh, PA, USA
Peking University <i>B.S. in Computer Science and Technology</i>	Sep. 2012 - Jul. 2016 Beijing, China

Work Experience

ByteDance <i>Research Scientist, Computer Vision</i>	Nov. 2021 - Present Bay Area, CA, USA
PRO Unlimited @ Facebook Onsite <i>Research Collaborator</i>	Sep. 2019 - Nov. 2019 Pittsburgh, PA, USA
Facebook Reality Labs <i>Research Intern, Full Body Capture and Reconstruction</i>	May. 2019 - Aug. 2019 Sausalito, CA, USA
UISEE Technology <i>Algorithm Engineer Intern</i>	Apr. 2016 - Jul. 2016 Beijing, China
Intel China Research Center <i>Research Intern, Computer Vision</i>	Sep. 2015 - Mar. 2016 Beijing, China

Selected Products

- [1] **TikTok AI-Moji, 2024**
 - Cartoonish avatar stickers with expressive expressions
- [2] **TikTok AI Self, 2024**
 - Create personalized photorealistic portraits with free prompting
- [3] **Qingyan AI Photo, 2023**
 - Create personalized photorealistic portraits in 20 minutes, with 5-20 images
- [4] **TikTok AI Avatar, 2023**
 - Create AIGC profile pictures from 3-10 photos in minutes
- [5] **TikTok AI Portrait, 2022**
 - Sticker effect creating AIGC portrait in seconds with one single selfie
- [6] **TikTok Avatar, 2022**
 - Personalized 3D avatar with realtime expression tracking

Selected Publications

- [1] **COAP: Memory-Efficient Training with Correlation-Aware Gradient Projection**
 - Jinqi Xiao, Shen Sang, **Tiancheng Zhi**, Jing Liu, Qing Yan, Linjie Luo, Bo Yuan
 - IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.
- [2] **ID-Patch: Robust ID Association for Group Photo Personalization**
 - Yimeng Zhang, **Tiancheng Zhi**, Jing Liu, Shen Sang, Liming Jiang, Qing Yan, Sijia Liu, Linjie Luo
 - IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2025.
- [3] **AgileAvatar: Stylized 3D Avatar Creation via Cascaded Domain Bridging**
 - Shen Sang, **Tiancheng Zhi**, Guoxian Song, Minghao Liu, Chunpong Lai, Jing Liu, Xiang Wen, James Davis, Linjie Luo

- ACM SIGGRAPH Asia Conference (**SIGGRAPH Asia**), 2022.

[4] Learning Continuous Implicit Representation for Near-Periodic Patterns

- Bowei Chen, **Tiancheng Zhi**, Martial Hebert, Srinivasa G. Narasimhan
- European Conference on Computer Vision (**ECCV**), 2022.

[5] Semantically Supervised Appearance Decomposition for Virtual Staging from a Single Panorama

- **Tiancheng Zhi**, Bowei Chen, Ivaylo Boyadzhiev, Sing Bing Kang, Martial Hebert, Srinivasa G. Narasimhan
- ACM Transactions on Graphics (**SIGGRAPH**), 2022.

[6] TexMesh: Reconstructing Detailed Human Texture and Geometry from RGB-D Video

- **Tiancheng Zhi**, Christoph Lassner, Tony Tung, Carsten Stoll, Srinivasa G. Narasimhan, Minh Vo
- European Conference on Computer Vision (**ECCV**), 2020.

[7] Multispectral Imaging for Fine-Grained Recognition of Powders on Complex Backgrounds

- **Tiancheng Zhi**, Bernardo R. Pires, Martial Hebert, Srinivasa G. Narasimhan
- IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2019. (**Oral**)

[8] Deep Material-aware Cross-spectral Stereo Matching

- **Tiancheng Zhi**, Bernardo R. Pires, Martial Hebert, Srinivasa G. Narasimhan
- IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2018.