Zhiyang (Frank) Dou

% frank-zy-dou.github.io

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Bio. I am a third-year Ph.D. candidate in CG and CV Group at the University of Hong Kong, supervised by Prof. Wenping Wang and Prof. Taku Komura. I received my B. Eng. degree with honors at Shandong University. My undergraduate research advisor is Prof.

Research interests: 3D Vision, Character Animation, Geometric Modeling and Processing, Computer Graphics.



Education

Aug 2020 - Present Ph.D. in CG and CV, Computer Science, The University of Hong Kong.

Sep 2016 – June 2020 Computer Science Honours, Computer Science (Elite Program), Shandong University.



Research Work

> E-ASE: Conditional Adversarial Skill Embeddings for Elite Physics-based Characters Zhiyang Dou, Xuelin Chen, Qingnan Fan, Taku Komura, Wenping Wang. In Submission.

> TORE: Token Reduction for Efficient Human Mesh Recovery with Transformer

Zhiyang Dou*, Qingxuan Wu*, Cheng Lin, Zeyu Cao, Qiangqiang Wu, Weilin Wan, Taku Komura, Wenping Wang. In Submission.

[Project Page][Paper]

> Globally Consistent Normal Orientation for Point Clouds by Regularizing the Winding-Number Field

Rui Xu, Zhiyang Dou, Ningna Wang, Shiqing Xin, Xiaohu Guo, Wenping Wang.

ACM Transactions on Graphics. SIGGRAPH 2023.

[Project Page][Code]

> RFEPS: Reconstructing a Feature-line Equipped Polygonal Surface from Unoriented Point Cloud

Rui Xu, Zixiong Wang, Zhiyang Dou, Chen Zong, Shiqing Xin, Mingyan Jiang, Changhe Tu.

ACM Transactions on Graphics. SIGGRAPH Asia 2022.

[Project Page][Code]

> Coverage Axis: Inner Point Selection for 3D Shape Skeletonization

Zhiyang Dou, Cheng Lin, Rui Xu, Lei Yang, Shiqing Xin, Taku Komura, Wenping Wang. Computer Graphics Forum. Eurographics 2022.

[Project Page][Code]

> Student close contact behavior and COVID-19 transmission in China's classrooms

Yong Guo*, **Zhiyang Dou***, Nan Zhang, Xiyue Liu, Boni Su, Yuguo Li, Yinping Zhang. PNAS Nexus, 2023.

[Project Page][Paper][Press Release]

> Close Contact Behaviors of University and School Students in 10 Typical Indoor Environments

Nan Zhang, Li Liu, Zhiyang Dou, Xiyue Liu, Xueze Yang, Yong Guo, Silan Gu, Yuguo Li, Hua Qian, Jianjian Wei. Accepted to ACS Environmental Science & Technolog, IF=11.4, 2022.

> Real Close Contact Behavior-based COVID-19 Transmission and Interventions in Subway

Xiyue Liu*, **Zhiyang Dou***, Lei Wang, Boni Su, Tianyi Jin, Yong Guo, Jianjian Wei, Nan Zhang. Journal of Hazardous Materials (JHM), IF=14.2, 2022.

> Top-Down Shape Abstraction Based on Greedy Pole Selection

Zhiyang Dou, Shiqing Xin, Rui Xu, Jian Xu, Yuanfeng Zhou, Shuangmin Chen, Wenping Wang, Xiuyang Zhao, Changhe Tu. IEEE Transactions on Visualization and Computer Graphics (TVCG), 2021.

*Equal contribution

Research Experience

- > Jun. 2023 Jul. 2023 Academic Visit, Beijing University of Technology (BJUT).
- > Apr. 2022 Jun. 2023 Research Intern, Tencent Al Lab.
- > Jul. 2019 Oct. 2019 Research Assistant, The University of Hong Kong.
- > Mar. 2018 Jun. 2019 Research Assistant (part-time), Interdisciplinary Research Center (IRC).

Scholarships

- > Oct 2020 Postgraduate Scholarship.
- > Oct 2019 National Scholarship (0.2%).
- > Oct 2018 National Scholarship (0.2%).
- > Dec 2018 Presidential Scholarship (top 30 at the University).

Patents & Competitions

- > [Patent] Method, Device and Process for Hand-to-Surface Contact Detection, 2023, Under Review.
- > [Patent] Method, Device and Process for Social Distancing, 2020, Patent CN202110334126.
- > Meritorious Winner, International Mathematical Modeling Contest: MCM, 2019.
- > Meritorious Winner, International Mathematical Modeling Contest: ICM, 2018.
- > National First Prize (1%), National Collegiate Mathematical Modeling Contest, 2019.
- > National First Prize, Best Paper (8/38573), National Collegiate Mathematical Modeling Contest, 2018.

Services

- > Reviewer Services: ICCV 2023; CGI 2023; CVPR 2023; FSDM 2023.
- > 2021 2022 Junior Resident Tutor at Graduate House.
- > 2020 2022 Teaching Assistant of COMP3362-22 Hands-on Al & COMP2120 Computer Organization.
- > 2019 2020 Teaching Assistant of SD01331421 Machine Learning.
- > 2018 2019 Co-founder of Open Interest Lab (IPLab) at SDU (By 2022, we have more than 120 members).