

Zhiyang (Frank) Dou

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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. Shiqing Xin](#).

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

🎓 Education

Aug 2020 – Present Ph.D. in Computer Graphics, Computer Science, *The University of Hong Kong*.

Sep 2016 – June 2020 B.Eng in 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.
Accepted to SIGGRAPH Asia 2023.
- **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.
IEEE International Conference on Computer Vision (ICCV) 2023.
[\[Project Page\]](#)[\[Paper\]](#)
- **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.
[SIGGRAPH 2023 Best Paper Award](#).
[\[Project Page\]](#)[\[Code\]](#)
- **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, Yiping Zhang.
PNAS Nexus, 2023.
[Featured in a press release by EurekAlert](#).
[\[Project Page\]](#)[\[Paper\]](#)[\[Press Release\]](#)
- **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.
Journal of Hazardous Materials (JHM), IF=14.2, 2023.
- **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 Visiting Scholar, [Beijing University of Technology \(BJUT\)](#).
- Apr. 2022 - Jun. 2023 Research Intern, [Tencent AI 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 Physics-based Motion Generation, 2023, Under Review.
- > [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 : CAD (CADJ); ICCV; CGI; CVPR; ICONIP; FSDM; MLIS.
- > 2022 - 2023 Teaching Assistant of COMP3362 Hands-on AI : Experimentation and Applications.
- > 2021 - 2022 Teaching Assistant of COMP3362 Hands-on AI : Experimentation and Applications.
- > 2020 - 2021 Teaching Assistant of COMP2120 Computer organization.
- > 2021 - 2022 Junior Resident Tutor at [Graduate House](#).
- > 2018 - 2019 Co-founder of Open Interest Lab (IPLab) at SDU (By 2022, we have more than 120 members).