Xinghui (Simon) Li

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EDUCATION

University of Oxford

DPhil Engineering Science *Oct 2019 ~ Expected Mar 2025*

- Supervised by Professor Victor Adrian Prisacariu.

MEng Engineering Science *Oct 2015 ~ Jul 2019*

- First Class Honour, Bachelor + Master.

RESEARCH INTERESTS

My research interests include 2D/3D Computer Vision and Generative AI. Specifically, I focused on problems in feature correspondence, visual positioning systems, 3D reconstruction, and diffusion models in 2D/3D editing tasks. My works have been published in various top-tier computer vision/machine learning conferences and journals.

WORK EXPERIENCE

Meta Platforms, Inc., US **Jul 2024 ~ Jan 2025**

Research Scientist Intern

- Improved novel sensor-based VR eye tracking with diffusion models and geometric information.
- Enhanced the performance of existing baseline methods by 20%.

Huawei Technologies R&D (UK) Limited, UK **Jul 2021 ~ Sept 2022**

Research Scientist Intern (Part-time)

- Worked on learning 3D attributes from 2D images of the human body.
- Delivered one BMVC 2022 paper.

University of Oxford, UK **Jul 2018 ~ Oct 2018**

Research Assistant

- Developed an algorithm that tracks the pose of the satellite in a video.
- The developed algorithm was used as a part of the redundant tracking system on the satellite.

ACADEMIC ACTIVITIES

Conference Reviewer

CVPR 2023, 2024, 2025; ICCV 2023; ECCV 2024; NeurIPS 2024; AAAI 2023, 2024

Journal Reviewer

TIP 2023, 2024

PUBLICATION

- Xianzheng Ma*, Yash Bhalgat*, Brandon Smart*, Shuai Chen, **Xinghui Li**, Jian Ding, Jindong Gu, Dave Zhenyu Chen, Songyou Peng, Jia-Wang Bian, Philip H Torr, Marc Pollefeys, Matthias Nießner, Ian D Reid, Angel X. Chang, Iro Laina, Victor Adrian Prisacariu, "*When LLMs step into the 3D World: A Survey and Meta-Analysis of 3D Tasks via Multi-modal Large Language Models*". (Submitted to TPAMI).
- Jingyi Lu, **Xinghui Li**, Kai Han, "*RegionDrag: Fast Region-Based Image Editing with Diffusion Models*". **(ECCV 2024)**.
- Jing Wu*, Jia-Wang Bian*, **Xinghui Li**, Guangrun Wang, Ian Reid, Philip Torr, Victor Adrian Prisacariu, "*GaussCtrl: Multi-View Consistent Text-Driven 3D Gaussian Splatting Editing*". **(ECCV 2024)**.
- **Xinghui Li**, Jingyi Lu, Kai Han, Victor Adrian Prisacariu, "*SD4Match: Learning to Prompt Stable Diffusion for Semantic Correspondence*". **(CVPR 2024)**.
- Shuai Chen, Yash Bhalgat, **Xinghui Li**, Jiawang Bian, Kejie Li, Zirui Wang, Victor Adrian Prisacariu, "*Neural Refinement for Absolute Pose Regression with Feature Synthesis*". **(CVPR 2024)**.
- **Xinghui Li**, Kai Han, Xingchen Wan, Victor Adrian Prisacariu, "*SimSC: A Simple Framework for Semantic Correspondence with Temperature Learning*", ArXiv 2023.
- **Xinghui Li**, Kai Han, Shuda Li, Victor Adrian Prisacariu, "*DualRC: A Dual-Resolution Learning Framework with Neighbourhood Consensus for Robust Visual Correspondences*", **(TPAMI 2023)**.
- Xue Hu*, **Xinghui Li***, Benjamin Busam, Yiren Zhou, Ales Leonardis, Shanxin Yuan, "*Disentangling 3D Attributes from a Single 2D Image: Human Pose, Shape and Garment*", **(BMVC 2022)**.
- Shuai Chen, **Xinghui Li**, Zirui Wang, Victor Adrian Prisacariu, "*DFNet: Enhance Absolute Pose Regression with Direct Feature Matching*", **(ECCV 2022)**.
- **Xinghui Li**, Kai Han, Shuda Li, Victor Adrian Prisacariu, "*Dual-Resolution Correspondence Network*", **(NeurIPS 2020)**.