Bohao Peng

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Education

The Chinese University of Hong Kong (CUHK) — Hong Kong
3nd year Ph.D candidate of Computer Science and Engineering — *2022-Present*
- **Supervisor:** Jiaya Jia(IEEE Fellow) and Ming-Chang Yang

Harbin Institute of Technology, Shenzhen (HITsz) — Shenzhen
B.S. candidate of Computer Science and Technology — *2018-2022*
- **Supervisor:** Jingyong Su
- **GPA:** 93.11/100, 3.97/4; **Rank**: 2/207

Awards

- National Scholarship (Top 1%)
- ACM-ICPC, International Collegiate Programming Contest, regional: **Gold Medal**
- ACM-ICPC, International Collegiate Programming Contest, regional: **Gold Medal**
- ACM-ICPC, International Collegiate Programming Contest, regional: **Silver Medal**
- ACM-ICPC, International Collegiate Programming Contest, regional: **Silver Medal**
- CCPC, China Collegiate Programming Contest: **Gold Medal**
- CCPC, China Collegiate Programming Contest: **Silver Medal**
- First Ten Top Students in HIT (Top 0.1%)
- Huawei Outstanding Intern

Publications

* Contributed equally

- **Hierarchical Dense Correlation Distillation for Few-Shot Segmentation**
  Bohao Peng, Zhuotao Tian, Xiaoyang Wu, Chengyao Wang, Shu Liu, Jingyong Su, Jiaya Jia
  Computer Vision and Pattern Recognition (CVPR), 2023. [*Paper*]
  Highlight Paper (2.5% acceptance rate)

- **Omni-Adaptive Sparse CNNs for 3D Semantic Segmentation**
  Bohao Peng, Xiaoyang Wu, Li Jiang, Yukang Chen, Hengshuang Zhao, Zhuotao Tian, Jiaya Jia
  Computer Vision and Pattern Recognition (CVPR), 2024.

- **Pointcept: A codebase for point cloud perception research**
  Pointcept Contributor - **Team Member**
  Receiving over 2k Github Stars

- **Scalable Language Model with Generalized Continual Learning**
  Bohao Peng, Zhuotao Tian, Shu Liu, Mingchang Yang, Jiaya Jia
  International Conference on Learning Representations (ICLR), 2024. [*Paper*]

- **Controlnext: Powerful and efficient control for image and video generation**
  Bohao Peng, Jian Wang, Yuechen Zhang, Wenbo Li, Ming-Chang Yang, Jiaya Jia
  Under reviewing [*Paper*]
  Receiving over 1.7k Github Stars

- **Seg-zero: Reasoning-chain guided segmentation via cognitive reinforcement**
  Yuqi Liu *, **Bohao Peng ***, Zhisheng Zhong, Zihao Yue, Fanbin Lu, Bei Yu, Jiaya Jia
  Under reviewing [*Paper*]

- **GroupContrast: Semantic-aware Self-supervised Representation Learning for 3D Understanding**
  Chengyao Wang, Li Jiang, Xiaoyang Wu, Zhuotao Tian, **Bohao PENG**, Hengshuang Zhao, Jiaya Jia
  Computer Vision and Pattern Recognition (CVPR), 2024.

- **Prompt Highlighter: Interactive Control for Multi-Modal LLMs**
  Yuechen Zhang, Shengju Qian, **Bohao Peng**, Shu Liu, Jiaya Jia
  Computer Vision and Pattern Recognition (CVPR), 2024. [*Paper*]

- **Towards Large-scale 3D Representation Learning with Multi-dataset Point Prompt Training**
  Xiaoyang Wu, Zhuotao Tian, Xin Wen, **Bohao Peng**, Xihui Liu, Kaicheng Yu, Hengshuang Zhao
  Computer Vision and Pattern Recognition (CVPR), 2024. [*Paper*]

- **An Improved Baseline for Reasoning Segmentation with Large Language Model**
  Senqiao Yang, Tianyuan Qu, Xin Lai, Zhuotao Tian, **Bohao Peng**, Shu Liu, Jiaya Jia
  arXiv preprint arXiv:2312.17240 [*Paper*]

- **Magic Mirror: ID-Preserved Video Generation in Video Diffusion Transformers**
  Yuechen Zhang, Yaoyang Liu, Bin Xia, **Bohao Peng**, Zexin Yan, Eric Lo, Jiaya Jia
  Under reviewing [*Paper*]

- **A Method and Device for Sperm Morphology Analysis**
  Jingyong Su, **Bohao Peng**, Kezhou Li, Dongzhi Jiang
  National Invention Patent: 202110083620.6.

Experiences

- **ICPC - International Collegiate Programming Contest - Hong Kong, 2022**
  Technical Director

- **China Collegiate Programming Contest - Final, 2019**
  Technical Support

- **Noah's Ark Lab Research Intern | Huawei**
  Mentor: Dr. Wenbo Li
  Receiving Huawei Outstanding Intern