

Lin Xuanxiang

South China University of Technology
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RESEARCH INTERESTS

Theories and applications of neural architecture search, especially their particular use in point cloud learning.

EDUCATION

Ph.D student, Information and Communication Engineering
South China University of Technology, expected June 2023
Bachelor of Engineering, Information Engineering
South China University of Technology, June 2018

RESEARCH EXPERIENCE

Neural Architecture Search

April 2018-present

- Currently focusing in automated design of rotation-equivariant point cloud networks, including network build-up and search strategy.
- Researched in designing search space for 3D point cloud architecture search.
- Researched in NAS for image classification based on MCTS.
- Reproduced and investigated in ENAS and DARTS, including in-depth analysis of their searching dynamics.

Adversarial Attack and Defense

June 2017–March 2018

- Designed and implemented methods on the generation and defense of adversarial examples based on denoiser. Bronze medal on Kaggle in NIPS 2017: Non-targeted Adversarial Attack competition.

PUBLICATIONS

- Xuanxiang Lin, Ke Chen and Kui Jia. 2021. Object Point Cloud Classification via Poly-Convolutional Architecture Search. In Proceedings of the 29th ACM International Conference on Multimedia

ENGINEER EXPERIENCE

One-man Infrastructure Team at GorillaLab, SCUT

Jun 2021–Now

- Developed plugins in OpenPAI for fine-grained management and efficient, interactive training for large-scale AI training on cloud.
- Designed, deployed and maintaining a solution for AI experiments, which includes a k8s cluster, OpenPAI cluster service and NFS+Ceph storage backend.

Research Intern at DexForce, Guangzhou

May 2020–Aug 2020

- Researched in edge detection and part segmentation methods for images.
- Developed a containerized partial point cloud generation service.

RELEVANT SKILLS

Languages Native in Mandarin, Cantonese, proficient in English.

Computer Skills

- Python/Shell Scripting, C/C++
- Linux system management, including container and k8s technique