Xin HE (贺鑫), Ph.D. Student

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https://scholar.google.com.hk/citations?user=uK-aRUsAAAAJ
AutoML 知乎专栏 (https://www.zhihu.com/column/automl)

Education

2018 – Present **Ph.D. Computer Science, Hong Kong Baptist University**
Research direction: *Automated Machine Learning, Neural Architecture Search, Deep Learning.*

2014 – 2018 **Bachelor of Engineering, Communication Engineering, Huazhong University of Science and Technology**

Research Publications

1. **He, X.**, Yao, J., Wang, Y., Tang, Z., Cheung, K. C., See, S., Han, B, & Chu, X. (2023). NAS-LID: Efficient Neural Architecture Search with Local Intrinsic Dimension. AAAI. (CCF-A)
2. Ying, G., **He, X.**, Gao, B., Han, B., & Chu, X. (2022). EAGAN: Efficient two-stage evolutionary architecture search for gans. ECCV. (CCF-B, co-first authors)
3. **He, X.**, Wang, S., Ying, G., Zhang, J., & Chu, X. (2022). Evolutionary Multi-objective Architecture Search Framework: Application to COVID-19 3D CT Classification. International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI) (CCF-B).
4. Tang, Z., Zhang, Y., Shi, S., **He, X.**, Han, B., & Chu, X. (2022). Virtual Homogeneity Learning: Defending against Data Heterogeneity in Federated Learning. ICML. (CCF-A)
5. **He, X.**, Wang, S., Chu, X., Shi, S., Tang, J., Liu, X., Ding, G. (2021). Automated model design and benchmarking of deep learning models for covid-19 detection with chest ct scans. AAAI, 35(6), 4821–4829. (CCF-A)
6. **He, X.**, Zhao, K., & Chu, X. (2021). Automl: A survey of the state-of-the-art. Knowledge-Based Systems, 212, 106622. (CCF-C, 750+ citations)
7. Wang, Y., Wang, Q., Shi, S., **He, X.**, Tang, Z., Zhao, K., & Chu, X. (2020, May). Benchmarking the performance and energy efficiency of AI accelerators for AI training. In 2020 20th IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGRID) (pp. 744-751). IEEE.
8. **He, X.**, Wang, S., Shi, S., Tang, Z., Wang, Y., Zhao, Z., Liu, X. et al. (2019). Computer-aided clinical skin disease diagnosis using cnn and object detection models. In 2019 IEEE international conference on big data (big data) Workshop (pp. 4839–4844). IEEE.

9. **He, X.**, & Chu, X. (2022). Medpipe: End-to-end joint search of data augmentation policy and neural architecture for 3d medical image classification. TechRxiv. (Submitted to IEEE Transaction on Medical Imaging)

Awards

Awards and Achievements

2022 Computer Science Department RPg Performance Award, Hong Kong Baptist University.

2021 **Best Presentation Award of 2021 PG day**

2020 Computer Science Department RPg Performance Award, Hong Kong Baptist University.

Teaching Awards

2020/2021 Excellent Teaching Assistant Performance Awards (COMP 7800 Analytic Models in IT Management), Hong Kong Baptist University.

2019/20 Excellent Teaching Assistant Performance Awards (COMP 7540 IT Management: Principles & Practice), Hong Kong Baptist University.

Excellent Teaching Assistant Performance Awards (COMP 7180 Quantitative Methods for Data Analytics & Artificial Intelligence), Hong Kong Baptist University.

Miscellaneous Experience

Invited Reviewer for Journals/Conferences

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Medical Imaging (TMI)
- IEEE Journal of Biomedical and Health Informatics (JBHI)
- Expert Systems with Applications
- AAAI Conference on Artificial Intelligence (AAAI) 2020/2022/2023
- European Conference on Computer Vision (ECCV) 2022
- Computer Vision and Pattern Recognition Conference (CVPR) 2023

Internship

06/2021-now NVIDIA AI Tech Center Joint Collaboration Program.

09/2022-11/2022 visiting at NUS, advised by Prof. You Yang

Miscellaneous Experience (continued)

09/2020-11/2020 — Huawei Noah'S Ark Lab, Shenzhen: Develop and maintain AutoML Framework Vega(https://www.noahlab.com.hk/opensource/vega/).

Projects

2021-Present — AutoML Framework: https://github.com/marsggbo/hyperbox

2021 — CVPR2021 Neural Architecture Search 1st lightweight NAS challenge and moving beyond: 7th pride