

# Lingyun Yang

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## Personal profile

Ph.D. Student

Department of Computer Science and Engineering  
Hong Kong University of Science and Technology  
Clear Water Bay, Kowloon, Hong Kong

## Research interests

Machine learning for systems, cloud computing, resource management for large-scale clusters

## Education

### **Hong Kong University of Science and Technology (HKUST)**

*Department of Computer Science and Engineering*

Ph.D. in Computer Science and Engineering

2020 – Present

◊ Advisor: Prof. Wei Wang

### **South China University of Technology (SCUT)**

*School of Computer Science and Engineering*

B.Eng. in Computer Science and Technology

2016 – 2020

◊ Studied at All-English Innovation Class (*GPA: 3.82/4*)

## Professional experience

### **Alibaba Group**

Hangzhou, China

*Research Intern*, Cloud Native Group

Dec. 2020 - Present

◊ Mentor: Jian He and Yinghao Yu

◊ Built Morphling, an auto-configuration framework for machine learning model serving on Kubernetes, with intelligent algorithms to quickly find the optimal configuration. [<https://github.com/kubedl-io/morphling>]

### **Hong Kong University of Science and Technology**

Clear Water Bay,

Kowloon, Hong Kong

*Research/Teaching Assistant*, System Algorithm Group

Sept. 2020 - Present

### **Microsoft Research Asia**

Beijing, China

*Research Intern*, Innovation Engineering Group

Jul. 2019 - Jun. 2020

◊ Mentors: Lewei Lu and Chong Li

◊ Applied multiple latest attention mechanisms to face recognition models, integrated with knowledge distillation, built in CNTK.

◊ Built a neural architecture search pipeline for face recognition tasks.

◊ Designed a symmetric padding pooling layer with self-attention which can be easily integrated into any model structure, achieve the state-of-the-art performance and improve the robustness to various perturbations.

Publications	◇ Luping Wang*, <b>Lingyun Yang*</b> , Yinghao Yu, Wei Wang, Bo Li, Xianchao Sun, Jian He, and Liping Zhang, “Morphling: Fast, Near-Optimal Auto-Configuration for Cloud-Native Model Serving”, to appear in the <i>Proceedings of ACM Symposium on Cloud Computing (SoCC ’21)</i> , Seattle, WA, November 2021. (*Co-first authors in alphabetical order)	
Honors and scholarships	◇ Merit Student & Excellent Student Cadre	Nov. 2019
	◇ National Scholarship	Oct. 2019
	◇ Silver Medal, 2019 ICPC China Xi’an National Invitational Programming Contest	May 2019
	◇ First Prize, 17th Guangdong Collegiate Programming Contest	May 2019
	◇ Silver Medal, 2019 Sanqi Mutual Entertainment Cup Programming Contest	Apr. 2019
	◇ Gold Medal, 2019 South China University of Technology ACM Programming Contest	Apr. 2019
	◇ Bronze Medal, 2018 ACM-ICPC Asia Xuzhou Regional Contest	Oct. 2018
	◇ Silver Medal, 1st Xiao Mi Collegiate Programming Contest	Sept. 2018
	◇ Gold Medal, 2018 South China University of Technology ACM Programming Contest	Apr. 2018
	◇ The First Prize Scholarship	Nov. 2017
	◇ Bronze Medal, 2017 ACM-ICPC Asia Xian Regional Contest	Oct. 2017
	◇ Gold Medal, 12th China Youth Robot Competition	Jul. 2012
	◇ Champion, 2012 RoboCup Youth Robot World Cup China Division Selection Competition	Mar. 2012
Teaching activities	<b>Hong Kong University of Science and Technology</b>	Clear Water Bay, Kowloon, Hong Kong
	<i>Teaching Assistant, Department of Computer Science and Engineering</i>	
	◇ COMP 4651: Cloud Computing and Big Data Systems	Fall 2021
	◇ COMP 4651: Cloud Computing and Big Data Systems	Spring 2021
Other experience	<b>ACM-ICPC Competition Group</b>	
	<i>Group Member &amp; Team Leader</i>	2016 - 2019
	◇ Coach: Prof. Chuhua Xian	
	◇ Major domains: Dynamic Programming, Number Theory, Data Structure, etc.	
	<b>Machine Learning &amp; Cybernetics Research Group</b>	
	<i>Undergraduate Research Assistant</i>	2017 - 2019
	◇ Advisor: Prof. Patrick Chan	
	◇ Completed research projects: Fundus Stitching, Tableware Recognition and NN Visualization.	
	<b>Tencent Innovation Club</b>	
	<i>Vice Chairman</i>	2018 - 2019

◇ Led the largest student club at the School of Computer Science and Engineering in SCUT, sponsored by Tencent Technology (Shenzhen) CO., LTD.

**ByteDance Summer Camp**

Beijing, China

*Camper*, Algorithm track

Aug. 2019

◇ Mentor: Dr. Yibo Zhu

◇ Totally 150 participants selected from more than 6k candidates.

◇ Trained a large scale BERT Model by using Pipeline and Model Parallelism.

**International Conference on Machine Learning**

Chengdu, China

**and Cybernetics & International Conference on Wavelet Analysis and Pattern Recognition**

*Student helper*

Jul. 2018

Skills

Programming Languages: C++, Python, Golang

Toolkits: Git, L<sup>A</sup>T<sub>E</sub>X, Linux Shell, Qt, MySQL, Markdown

Languages: English (fluent), Mandarin (Native speaker)

Other interests

Read various kinds of books, play basketball, workout at the gym, food lover.

In my spare time, I also write some blogs about interesting stuffs aperiodically.

Here is my personal blog (in Chinese): <https://mental2008.github.io/>.