# Lin ZHANG

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### **EDUCATION**

## **Bachelor of Science in Computer Science & Mathematics**

The Hong Kong University of Science and Technology, Hong Kong

Sept 2016 - Present

• GPA: 3.977/4.3

### **Undergraduate Exchange**

ETH Zurich, Switzerland

Sept 2018 - Feb 2019

### RESEARCH & PROJECTS

### **One-Shot Object Detection without Finetuning**

Computer Vision | Prof. Chi-Keung Tang & Prof. Yu-Wing Tai | HKUST

Sept. 2019 - Present

- Designed a two-stage finetuning-free one-shot object detection model based on FCOS and novel training strategies
- Surpassed previous SOTA by 12.1 mAP points on PASCAL VOC 2007 dataset
- In submission to CVPR 2020

### **Deep Video Interpolation and Extrapolation**

Computer Vision | Prof. Chi-Keung Tang & Prof. Yu-Wing Tai | HKUST

Feb. 2019 - Sept. 2019

- Interpolated & extrapolated video frames and segmentations within 1s interval on Cityscape
- Tracked foreground objects in nearby frames and generate objects in a posture-aware strategy
- Used HRNet-PatchGAN model to improve video consistency and local details

## Joint Video Object Detection and Tracking via Tracklet Memory

Computer Vision | Dr. ZhaoPeng CUI | ETH Zurich CVG

Sept. 2018 - Jan. 2019

Designed and implemented a time series tracklet memory module based on RFCN

## Machine Learning for Building AI Teaching Assistants

Natural Language Processing | Prof. Dit-Yan YEUNG | HKUST

June. 2018 - Aug. 2018

- Detected duplicate questions on Quora Question Pairs Dataset
- Built bidirectional sequential models and used Autoencoder for data augmentation
- Highest accuracy on validation set reaches 0.85.

## **Analytics and Recommendation for User Location Data**

Indoor Localization | Prof. Shueng-Han Gary Chan | HKUST

Feb. 2018 - May. 2018

- Built Android application to detect MiniBeacons RSSI signals and achieve Indoor Localization
- Built database and web framework using Django
- Communication of user location data between local devices and central database

### **EXPERIENCE**

## Software Developer in HKUST Robotics Team – Intelligent Car Sub Team

Robotics | Prof. Kam Tim WOO | HKUST

Sept. 2016 - July. 2017

- Designed real-time camera algorithm for robot to recognize various complex tracks
- Coded with C++ on microcontrollers to balance and control the robot using PID controller
- Achieved 1m/s speed in the competition

#### COMPETITIONS

HackUST 2018

Apr. 2018

• 1st Runners-up of Transportation Group, HKUST

The 12th NXP Cup Intelligent Car Racing Competition

July. 2017

The 3<sup>rd</sup> Class Award in Balance Car Category, South China Region

The HKUST 8th Robot Design Contest

Nov. 2016

• 1st Runner Up & Most Cost-Effective Award, HKUST

## **EXTRACURRICULUM**

## The HKUST 9th Robot Design Contest

Peer Mentor

Sept. 2017 - Dec. 2017

## **HONORS & AWARDS**

- HKSAR Government Scholarship (2016-2020)
- Kerry Holdings Limited Scholarship (2016-2020)
- Lee Hysan Foundation Exchange Scholarships (2019)
- Dean's List (2016-2018)

## **SKILLS**

- Languages: C/C++, Python, MATLAB, Java, JavaScript
- Toolkits: PyTorch, TensorFlow, Android, OpenGL, Spark