

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, top 1% | COMP Course: 4.150/4.3 | MATH Course: 4.022/4.3

Undergraduate Exchange

ETH Zurich, Switzerland

Sept 2018 - Feb 2019

RESEARCH

One-Shot Object Detection without Finetuning

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

Sept. 2019 - Nov. 2019

- 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 (30%) on PASCAL VOC 2007 dataset
- In submission to a major conference in 2020

PROJECTS

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
- Proposed tracking-based foreground-background separation generation strategy
- Applied 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 Faster-RCNN

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, highest accuracy reaches 85.89%.
- Built bidirectional sequential deep learning models and used Autoencoder for data augmentation

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 supporting communication of user location

COMPETITIONS

HackUST in HKUST

Apr. 2018

Entrepreneur | 1st Runners-up of Transportation Group | 95 teams

- Proposed to provide parking lots vacancy consultation and implemented a web demo

The 12th NXP Cup Intelligent Car Racing Competition in South China Region

July. 2017

Robotics | The 3rd Class Award in Balance Car Category | 64 teams

- Implemented PID controllers and Kalman filtering on gyroscope and accelerometer to control robot motion
- Designed real-time camera algorithms to recognize tracks and find shortest path

The 8th Robot Design Contest in HKUST

Nov. 2016

Robotics | 1st Runner Up & Most Cost-Effective Award | 123 participants

- Coded with Keil embedded toolkit on ARM architecture
- Designed recognition algorithms for a racing car and wireless control system for a shooting robot

EXPERIENCE

Peer Mentor of HKUST 9th Robot Design Contest

Robotics | HKUST

Sept. 2017 - Dec. 2017

- Led and taught a group of new members to design and build robots

Software Developer in HKUST Robotics Team – Intelligent Car Sub Team

Robotics | Prof. Kam Tim WOO | HKUST

Sept. 2016 - July. 2017

- Represent HKUST to join Intelligent Car Racing Competition

HONORS & AWARDS

- HKSAR Government Scholarship, HKD 80000 per year, ~100 among all university students, 2016-2020
- Lee Hysan Foundation Exchange Scholarships, HKD 13000, 11 among all fall 2018 exchange students, 2019
- Kerry Holdings Limited Scholarship, HKD 60000 per year, ~20 among all non-local new UG students, 2016-2020
- Dean's List, for students with term grade average above 3.7, 2016-2018

SKILLS

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