HU, YIXUAN Y.H. 胡以璇
Curriculum Vitae

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EDUCATION

2014 – 2015	**Master of Science**	
	TELECOMMUNICATIONS	
	The Hong Kong University of Science & Technology	
2010 – 2014	**Bachelor of Economics**	
	FINANCE	
	Harbin Institute of Technology	
2009 – 2013	**Bachelor of Engineering**	
	TRAFFIC INFORMATION & CONTROL ENGINEERING	
	Harbin Institute of Technology	

PROFESSIONAL SKILLS

Professional Skills	**Tensorflow**, **Caffe**, **C/C++**, **Python**, Native JAVA, **OpenCL**, **CUDA**, **OpenMP**, Pthread, BLAS, **OpenCV** **Neon Instruction Set**, SSE
Background Skills	**Digital Signal Process**, MATLAB, **Linux**, MacOS, Windows, Assembly language, Android, Git, Protocol Buffers, Bazel, ARM, LaTeX, Markdown, MS Office

PROFESSIONAL KNOWLEDGE

MACHINE LEARNING	**Deep Learning**, **CNN**, RNN, **LSTM**, GRU, **Classification, Regression**, **Object Detection**
PARALLEL COMPUTING	SIMD, MIMD programming, Neon intrinsic optimization, concurrent design & **GPU computing**.
MEMORY SYSTEM	Modern Memory System, Bus System, **Cache System**. Practical exp. to optimize software memory access.
PROCESS MANAGEMENT	Unix-like OS process management, fit software to un-symmetric Big-Little CPU architecture.

WORK EXPERIENCE

CURRENT, FROM FEB. 2017

Hong Kong Applied Science & Technology Research Institute
Multimedia Processing Engineer
Focus on computer vision algorithms and deep learning applications

Deep Learning based Biomedical Image Analysis and Assistant Diagnosis
Key word: Deep Learning, Biomedical Engineering
Locate abnormal region from pathological section image for cervical cancer assistant diagnosis

Pedestrian Tracking for Smart Surveillance
Key word: CNN, Deep Learning, Asynchronous Computing
Apply deep learning on high accuracy real time pedestrian monitoring

FEB. 2017, FROM JUL. 2015

TCL Corporate Research, Hong Kong
High Performance Computing Engineer
Responsible for **computer vision & deep learning** algorithms optimisation & acceleration.
Including but not limited to **SIMD** design, **GPU** software design and **multi-processor** algorithm design, from **server** to **mobile**.

PATENT

An Audio High Frequency Signal Reconstruction Algorithm: *CN2016103403041*
Key word: Digital Signal Processing, Time Series Analysis
An algorithm that use the low frequency audio signal to speculate and reconstruct high frequency part for music player. Turn low quality music source to 192kbps HiRes audio signal.

An Bluetooth Based Tracking and Localisation Algorithm: *CN2016112700564*
Key word: Digital Signal Processing, Bluetooth Localisation
An algorithm that use multiple bluetooth devices' RSSI to infer target device's location, to realise automatic tracking for UAV or other devices

MISCELLANEOUS

- **Githuber**, hacker spirit, programming lover
- Interested in Kant philosophy and Metaphysics
- Critical and creative thinking, good logic stringency
- Photographer, visual arts fan
- Cumulative blood donation 1600 cc