

HU, YIXUAN Y.H. 胡以璇

Curriculum Vitae

Shatin, New Territories, Hong Kong S. A. R
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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, L^AT_EX, Markdown, MS Office**
- Basic Skills Assembly language, Android, Git, Protocol Buffers, Bazel, ARM

PROFESSIONAL KNOWLEDGE

- PARALLEL COMPUTING SIMD, MIMD programming, Neon intrinsic optimization, concurrent design & **GPU computing**.
- MACHINE LEARNING **Deep Convolutional Neural Networks**, MLP, AlexNet, GoogleNet, **Inception**, ResNet etc.
- 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 algorithms acceleration, 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