

Kong, Chung To (Andy)

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RESUME SUMMARY

Nickname	Andy
Years(s) of Work Experience	25 years
Latest Job Function	Engineering
Latest Industry Sector	Engineering - Electrical / Electronic / Mechanical
Highest Career Level	Management level
Highest Education Attained	Computer Science PhD Electrical and Electronic Engineering Master

EXECUTIVE SUMMARY

An engineering management position that will utilize my digital and logic design skills while expanding my knowledge.

EDUCATION

2019 – 2025 (PhD)

University of Hong Kong, PhD in Computer Science (final year)

2017 – 2018 (First Class Honor, GPA 3.75)

University of Hong Kong, Master in Electrical and Electronic Engineering (EEE)

1997 – 2000 (GPA 3.5)

University of British Columbia, Electrical and Computer Engineering, Commerce Minor

RESEARCH PAPER AND PROJECT

Development of prototype machine brake and car safety gear testers for traction lift systems

https://www.hkie.org.hk/hkietransactions/article_detail.php?id=859&lang=en

Rationale for Developing a Brake Tester

<https://elevatorworld.com/article/rationale-for-developing-a-brake-tester/>

Urban Farming in Myanmar: An Experiential Learning Project for Engineering and Science Students from Hong Kong and Myanmar

<https://ieeexplore.ieee.org/document/8615341>

Hacking CCTV by changing time (oral presentation in ICECCE2021, paper 151)

<https://ieeexplore.ieee.org/document/9514241/>

The Possibility of Solving a 3x3 Rubik's Cube under 3 Seconds

<https://publications.waset.org/10012609/the-possibility-of-solving-a-3x3-rubiks-cube-under-3-seconds>

Evaluation of the performance of a CdZnTe-based soft gamma-ray detector for CubeSat payloads

<https://link.springer.com/article/10.1007/s10686-024-09936-w>

First Prize in the 6th Hong Kong University Student Innovation and Entrepreneurship Competition

<https://www.eee.hku.hk/news/first-prize-in-the-6th-hong-kong-university-student-innovation-and-entrepreneurship-competition/>

http://www.mingpaocanada.com/TOR/htm/News/20200622/hk-ghj1_r.htm

Robomaster 2019 Outstanding Advisor Award

https://www.cs.hku.hk/news-events/news-and-announcements/20191029_Robomaster2019

Guest speaker in the documentary "The Factory of the World"

<https://youtu.be/jZPy3OmfRU?t=1143>

Robot Arm Backpack for HK Makerfaire

<https://youtu.be/bur1EH1nhUo>

TVB interview about cubeSat

<https://youtu.be/qrEIV7N2bP8>

<https://youtu.be/-gemyzljBtU>

TVB interview about AI

<https://youtu.be/TOpp45faQTE>

Interviewed by 新华社

http://www.news.cn/2022-10/07/c_1129053575.htm

AI system for detecting child abuse

http://www.mingpaocanada.com/van/htm/News/20221106/HK-gba1_r.htm

Global space balloon challenge 2014

<https://www.youtube.com/watch?v=2x9FX3qGcjk>

<https://youtu.be/7QbznQZSsV4?t=68>

In 48th International Exhibition of Inventions of Geneva, won two special grand prizes Invention & Innovation CAI Award (China Delegation) and Prize of the Delegation of Malaysia, and a gold medal

<https://www.hku.hk/press/press-releases/detail/26060.html>

<https://m.chinanews.com/wap/detail/chs/sp/10005040.shtml>

Hong Kong MakerFaire 2018

<https://makezine.com/article/maker-news/maker-faire-hong-kong-2018/>

<https://www.youtube.com/watch?app=desktop&v=ZbG0awve44c>

Interviewed by SCMP about Hacking Space in HK

<https://www.scmp.com/lifestyle/technology/article/1262979/hackjam-great-minds-tinker-alike>

AI MV created using several AI tools

<https://youtu.be/whxyPeVE8Ok>

WORK EXPERIENCE

HKU Laboratory of Space Research

Sept/21 – present

Researcher Assistant

In charge of design and build cubeSat

Conduct engineering workshop about the cubeSat

<https://www.lsr.hku.hk/member/andy-kong/>

Hong Kong Univisual Intelligent Technology Limited

Sept/21 – Sept/23

Part-time Research Consultant (Artificial Intelligent)

Custom design AI system and integration with existing CCTV system

Manage R&D team to develop object detection and posenet system

HKU Space (part-time)

Sept/22 – Dec/22

Teacher (AI and Robotics)

Teach AI including python, tensorflow, posenet, mediapipe and AI ethics. Using AI to integrate with the robotics system using MQTT, SPI, I2C and serial communication.

Konica Minolta Hong Kong

Mar/21 – July/21

Technical Consultant (AI related)

Provide System Integration, Robotics, Access Control, CCTV, Facial Recognition B2B pre-sales technical advice.

University of Hong Kong

Jun / 18 - present

Consultant/Experiential Learning Officer/ Research Assistant

STEM Education Consultant, e-Learning Development Lab, Department of EEE,

HKU

AI Project Supervisor, Sport Artificial Intelligence Lab, Department of EEE, HKU

IOT System design in Myanmar, <http://codesustain.kitgor.com/2018-urban-farming/>

HKU Robomaster Team adviser, https://www.cs.hku.hk/news-events/news-and-announcements/20191029_Robomaster2019

Teaching Assistant for hardware, python and big data ELEC3848, ELEC2840, COMP3414, ENGG1330, and COMP2123, STAT1005, CCST9047

ICD Security

Jul / 15 - Aug / 17

Technical Support Engineer

In charge of all technical issue about the security system including CCTV and access control system

POAD

Sep / 14 - Feb / 15

Senior Manager

R&D big new LED screen design and new technology

Convey Advertising Company (Ad-Prom sub-contractor)

Jun / 11 - May / 13

R&D Manager

Evaluate and develop different LED products including LED walls and TV.

Peplink/Pismo Labs

Jul / 10 - Jun / 11

Senior Design Engineer

R&D, System design and schematics of a long-range Wi-Fi access point using Xilinx FPGA

Lumidiem (HK) Technologies Ltd./Elementlabs (www.elementlabs.com) under Barco

Oct / 07 - Jun / 10

Senior Electrical Engineer

Design and develop new protocol between LED tiles and system. Research on video scaling/offset technology by using a small FPGA.

Lighthouse Technologies Ltd.

Jun / 05 - Oct / 07

Senior Electrical Engineer

Design and Develop new FPGA control system for LED screen technology

Vancouver Robotics Ltd.

Jul / 02 - Jun / 05

President

Design Embedded Control System (Hardware/Software) for factories in Vancouver

Intrinsyc Software Inc., Vancouver, B.C.

Sep / 00 - Jun / 02

Hardware Developer

Develop VHDL components and implement them into Xilinx FPGA chips.

University of British Columbia, Vancouver, B.C.

Sep / 98 - Jun / 00

Teaching Assistant

Debug students' software programs/hardware design

SKILLS

Stable Diffusion, LLM, Python, VHDL, AHDL, Verilog, C, C++, Java, Scheme, Fortran, Motorola 68000 assembly, 68HC11 assembly, HTML, and Pbasic, Xilinx ISE, Modelsim, Synopsys, Cadence, Altera MAX+plus 2, Waveformer, Visio, StateCAD, FPGA Editor, FPGA floorplanner and Borland J Builder 3, StateCAD, HDL testbench, PhotoShop 7.0, Intel StrongArm 1110, Xilinx Spatran II, Analog Devices 2106x SHARC, Motorola 68000, 68HC11, Basic Stamp 2 and BS2SX, Altera Cyclone, Altera MAX 3000A, Xilinx SpatranXL, Quartus II 9.0, Xilinx ISE 9.1, Xilinx Spatran 3E, ChipScope, SignalTap II, IMPACT, uIP, TCP/IP, HTTP. google sketchup, blender, pepakura, autodesk 123D, arduino, Kinect, Texas Instruments DSP, Unity, Nvidia Nano/Xavier NX Orin, AI, node-red, mySQL, mediapipe, posenet, deepstream, cubeSat, stable diffusion, LLM, Ltxstudio, Suno, Aloha robot Arm, wordpress

LANGUAGES

Spoken/Written: English, Cantonese, Mandarin

NON-ACADEMIC ACTIVITIES

2017/2024, Speaker in Professional Information Security Association, <https://www.pisa.org.hk/>

2016 October, Speaker in TEDx Hong Kong

2011-2012 Founder of Hong Kong Maker Faire, www.hkmakerfaire.com

2010-2011 Vice president of UBC Alumni (HK), social and sport

2004-2005 Vice president of Vancouver Chinese Chess Association www.vancouvercca.com

1998-2000 President of UBC Chinese Chess Club

Have joined 16th senior boy scout and HK Air Cadet Corps

CERTIFICATES

Nvidia Ambassador and AI specialist

License for operating Amateur station from HK OFCA (Call Sign: VR2UGN)

Avigilon ACC Operator certificate / Avigilon Control Center Administrator certificate

Pro-Watch 4.2 Basic Training, Honeywell

Lenel Certified Associate / Lenel OnGuard Hardware and Software fundamentals Certificate

Lenel 7.3 Core Training

AgentVi Installer

Eagle Eye Networks Technical Training

Brivo Technical Training

AMAG Professional Symmetry Training

ExacqVision Training

S2 Security Certification

Genetec Omnicast Technical Certification / Genetec Synergis Technical Certification