

Ke-Hsin(Kexin) Tang

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EDUCATION

University of Illinois, Urbana-Champaign (UIUC) <i>Master of Engineering, Electrical and Computer Engineering</i>	Champaign, America 08/2021 ~ 05/2023
Huazhong University of Science and Technology (HUST) <i>Bachelor of Engineering, Electronic and Information Engineering</i> GPA: 3.93/4.0 GRADE: 90.9/100 RANK: 3/163	Wuhan, China 09/2017 ~ 06/2021

HONORS

- The Excellent Undergraduate (*top 1% in HUST*) 2020
- The Merit Student in HUST (*top 5% in HUST*) 2019 & 2020
- The National Scholarship 2019
- The Outstanding Individual of Innovation in HUST 2018 & 2019
- The 2nd prize in National Undergraduate Electronic Design Contest 2019
- The 3rd prize in National Undergraduate Smart Internet Innovation Design Contest 2018

INTERNSHIP

Xiaomi Corporation Computer Vision Algorithm Intern (Python)	12/2020 ~ 03/2021
<ul style="list-style-type: none">● Improved the mobile phone camera focus accuracy from 90% to 94% via using motion and focus blur algorithms to effectively enlarge the negative samples. Solved the blur issue when cameras shoot through glass;● Completed a function by adopting innovate structures to locate, recognize, and extract the boundaries of objects in images, which could be implemented in Xiaomi phones after lightening the model.	
Vision and Learning Representation Group, HUST Research Assistant (Python)	05/2020 ~ 06/2021
<ul style="list-style-type: none">● Proposed a Boundary Context Perception (BCP) module, which captures the pixel-to-pixel relevance, to generate closed object boundaries;● Designed a Cascade Boundary Refinement (CBR) structure, which orderly passes the perceived context feature to each refinement layer, to obtain a closed boundary with more accurate location;	

PROJECTS

Video Library (HTML/CSS/JavaScript/Django/Python)	01/2021 ~ 05/2021
<ul style="list-style-type: none">● Used HTML, CSS and JavaScript to complete the construction of the frontend;● Utilized MySQL as the database to achieve basic CRUD operations;● Implemented Node.js and Django frameworks to complete backend routing and error handler.	
FPGA-Based Paper Quantity Calculation Equipment (C/C++)	08/2019
<ul style="list-style-type: none">● Utilized C/C++ to achieve SPI to control the registers of capacitive sensor, programmed Infinite Impulse Response (IIR) Digital Filter to eliminate noise, and reduced the error by 20% compared with other teams;● Employed IIC to control LCD touch screen for instrument calibration and results display;● Adopted three-layer BP neural network for curve fitting, used MMSE as evaluation standard, and predicted the quantity of paper by this curve with the accuracy 10% higher than the average level.	
Autonomous Patrol Robot System (C/C++)	05/2018 ~ 08/2018
<ul style="list-style-type: none">● Accomplished the SPI, IIC and Controller Area Network protocols for signal processing and communicating;● Utilized Infrared Photodiode and Differential Manchester Code for wireless communication;● Implemented Nested Vectored Interrupt Controller (NVIC) system to instruct robot to identify unauthorized persons and notify the security management accordingly.	

SKILLS

Languages:	Python	Java	C/C++	JavaScript	HTML/CSS	Shell
Frameworks:	Caffe	PyTorch	Node.js	Django	Spring	
Databases:	MongoDB	MySQL	Redis			