Junde Li

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Education

Pennsylvania State University **Jan. 2019 – Present**
PhD student in Computer Science and Engineering
Advisor: Swaroop Ghosh

City University of Hong Kong **Oct. 2016**
MSc in Engineering Management

Qingdao University **Jun. 2015**
BSc in Logistics Management

Research Interests

Autonomous Systems, SoC Design, Quantum Computing. I am interested in machine learning, computer vision, autonomous vehicles, robotics, and their FPGA embedded system design, and quantum machine learning.

Work Experiences

Matrix Auto Technology Ltd 10/2018 – 12/2018
A.I. Software Engineer (Autonomous Driving) *Hong Kong*
MAT is a startup company providing self-driving car solutions and services.
1. Participated in developing vehicle localization using particle filter, based on initial location from sensors;
2. Designed self-driving car workflow prototype based on paper review on environmental perception, localization, path planning, prediction and control.

Advisor: Jean Lam

ASM Pacific Technology Ltd 07/2018 – 10/2018
Process Engineer (R&D) *Hong Kong*
ASMPT is a leading integrated solution provider in semiconductor and electronics industries.
1. Pre-processed images taken from silicone pads for recognizing wafer ID by Photo OCR pipelines;
2. Coordinated with control, mechanical, software and vision teams for making machine improvements;
3. Conducted research and development in computer vision and application for visual inspection.

Advisor: Damon Deng, Pak Kin Leung

City University of Hong Kong 07/2016 – 12/2018
P/T Research Assistant *Hong Kong*
Department of System Engineering and Engineering Management
1. Took part in several research projects associated with Human Factors, Data Analytics, and Machine Learning in fields of risk-taking behaviors of construction workers, and health technology;
2. Designed the research processes, proposed suitable research methods, and applied research grant as co-I.

Advisor: Alan Chan

Publications

J. Li, M. Alam, A. Ash-Saki, S. Ghosh. (2020). Hierarchical Improvement of Quantum Approximate Optimization Algorithm for Object Detection. International Symposium on Quality Electronic Design (ISQED). (Invited paper)

J. Li, N. Gattu, S. Ghosh. FAuto: An Efficient GMM-HMM FPGA Implementation for Behavior Estimation in Autonomous Systems. Transactions on Design Automation of Electronic Systems (TODAES). (Under Review)

J. Li, Q. Ma, A. Chan, & S. Man. (2019). Health Monitoring through Wearable Technologies for Older Adults: Smart Wearables Acceptance Model. Applied Ergonomics. (2019) 162-169.

Teaching Experiences

Pennsylvania State University *State College, PA*
Teaching Assistant (in charge), CMPSC 360 Discrete Mathematics Fall 2019
Teaching Assistant, CMPSC 360 Discrete Mathematics Spring 2019
Hold weekly recitation classes and office hours

Professional Services

Reviewer for IEEE Transactions on Mobile Computing
Sub-reviewer for Design Automation Conference
Sub-reviewer for International Conference on Hardware/Software Codesign and System Synthesis
Sub-reviewer for International Conference on Computer Design
Sub-reviewer for ACM/International Symposium on Low Power Electronics and Design

Honors and Awards

Self-driving Car Nanodegree (Computer Vision and Deep Learning), Udacity 2018
Distinction, City University of Hong Kong 2016
Excellent Student Award, Qingdao University 2013
Merit-based Scholarships, Qingdao University 2011-2013

Technical Skills

Computer Languages: Python, MATLAB, C++, Verilog
Tools: Tensorflow, Caffe, OpenCV, Linux Shell, Vivado HLS