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# LIU ZICHEN

+65 90520628  $\Diamond$ liuzichen@u.nus.edu  $\Diamond$  Homepage

# **EDUCATION**

## National University of Singapore

Aug 2016 - Present

Bachelor of Engineering in Electrical Engineering, Honours, Research Focused Pathway

Department of Electrical and Computer Engineering, 4.89/5

## Hanyang International Summer School, South Korea

Jul 2018

Studied courses including project management, engineering professionalism

# Peking University Summer School, China

Jul 2017

Studied courses including economics

#### **ACHIEVEMENTS**

Awarded Senior Middle 2 Scholarship by Ministry of Education, Singapore

2015

Awarded Science & Technology Scholarship by NUS

2016 - 2020

Won the Table Tennis singles for semi-final during the NUS Inter-Hall Games and contributed to my team clinching the overall championship (Male) title

Awarded Dean's List for being placed in the top 5% of the cohort

All eligible semesters

Awarded High Achievement Award in Innovation and Research for my undergraduate thesis

2020

#### **PROJECTS**

#### Neural Network on the System-on-Chip

Built an automated training and testing pipeline of a fully connected network on an embedded system with Zynq-7000 using C++ and Verilog; supports hardware acceleration by FPGA

#### **ARM Processor**

Built a pipelined ARM processor (ARMv3) at the micro-architecture level on FPGA using Verilog HDL

# Text Detection and Recognition

Implemented a pipeline for scene text detection and recognition based on CNN and RNN

#### **EXPERIENCE**

# Shopee, Singapore

January 2019 - Present

Data Science Intern Focuses on general computer vision related tasks. Specifically, built deep learning models for projects including small object detection, Chinese text detection and recognition, automated image product segmentation; built a web API for interactive segmentation. Directly contributed to aforementioned online services.

#### Learning and Vision Lab, NUS

May 2019 - Present

Final Year Project Focusing on deep learning algorithms for instance segmentation. Developing new techniques for training a network to locate accurate object masks and trying to perform on a par with current state-of-the-art.

# EXTRA-CURRICULAR

# Vice Head of Logistics and Welfare, NUS Chinese Society

Aug 2017 - May 2018

Coordinated with department members to set up and hold The 10<sup>th</sup> National Calligraphy Contest in NUS

Collaborated with members in the society to prepare and execute the Date or Not show attracting over 300 audiences

# Executive of NUS ECE Club

Aug 2017 - May 2018

Collaborated with team members to plan and conduct workshops for *Raspberry pi* and 3D printing to benefit students across faculties to learn useful skills

#### Member of Table Tennis Competition Team (M), NUS Sheares Hall

Aug 2016 - May 2017

Participated in NUS Inter-Hall Games 2016 and contributed to my team winning clinching the overall championship (Male) title