Wang Jiawen

Tel: +65 87992166 | Email: e0724539@u.nus.edu

EDUCATION

National University of Singapore, Singapore — Aug. 2021 - Dec. 2022
- Master of Science
- Major in Electrical & Computer Engineering

Jilin University 吉林大学, Changchun, China — Sep. 2017 - Jun. 2021
- Bachelor of Engineering
- Major in Communication Engineering
- GPA: 3.51/4 (Major GPA: 3.73/4)

COURSES

Data Structure and Algorithm (99) | Computer Network (94) | Operating System (A) | Database & Application (A) | Web Network Programming (A) | Embedded Computers(A) | Microcomputer Principle(A) | Probability and Statistics (A) | Information Theory (A) | Digital Signal Processing(A) | Object-oriented Programming Technology (A)

SKILLS

- **Java EE:** JVM, Java, MySQL, MyBatis, Spring MVC, Spring, HTML, CSS, Ajax, Javascript
- **Machine Learning:** reinforcement learning | deep learning | computer vision
- **Software engineering**: Led several software development projects on different platforms (**iOS, Android**) Developed products throughout the software lifecycle, from product design to development and deployment.

PROJECT EXPERIENCE

E-commerce Platform Development Project

Jun. 2020 - Aug. 2020
- Implemented dynamic visual effects using HTML, CSS, Ajax, JavaScript
- Integrated the system with SSM (Spring + SpringMVC + MyBatis) framework
- Built and deployed shopping cart and e-payment functions with MySQL

Contactless Parcel Volume Measurement System Jilin University

Jun. 2019 - Aug. 2020
- Built a real-time volume measurement system with phone camera, and deployed the project on Android platform
- Integrated AR motion tracking and surface detection system with ARcore framework
- Developed algorithm to calculate volume of parcels with different shapes
- Awarded with *Student Innovation and Entrepreneurship Project Prize* at Engineering department

RESEARCH EXPERIENCE

Research assistant at Medical Data Mining Laboratory, Jilin University — Aug. 2019 - May. 2020

Object Detection and Semantic Segmentation for Medical Images
- Detect white blood cells on blood sample slides under microscope
- Developed object detection algorithm for small, densely distributed objects with small sample size
- Processed 20000+ blood sample images. Generated a statistical report of detected blood cell types. Reached 82.4% accuracy

Final Year Project, National University of Singapore Suzhou Institute — Sep. 2020 - May. 2021

3D-Printed wearable sensor using piezoelectric and triboelectric hybrid mechanism for joint motion tracking
- Designed a rotary piezoelectric harvest to generate power
- Designed a three-channel sensory structure to get rotation angle from the triboelectric sensor for advanced signal analysis (AdaBoost, LightGBM, Random Forest, SVM)
- Implemented track motion in Unity

Domain Adaptation of Object Detection in Night Images National University of Singapore — Aug. 2021-
Computer Vision Group at ECE Department *Research Assistant*
- Using semi-supervised learning ideas to build CNN network architectures for domain adaptation
- Dataset pre-processing, data augmentation
- Proficiency with Pytorch machine learning framework to build object detection system

AWARDS

- Excellent Student Leader (Top 10% among students) — Jilin University, 2018 & 2019
- Secondary Scholarship — Jilin University, 2019 & 2020
- Electronic Design Competition, *First Prize* — Jilin University, 2019
- College Students Innovation and Entrepreneurship, *Copper Award* — Jilin University, 2020