

# Tianyin Wang

(+86)13668976019    isandrew.t.y.wong@gmail.com

## EDUCATION

---

### South China University of Technology(SCUT)

*Aug. 2019 - Jul. 2023*

Major in Computer Science, School of Computer Science & Engineering

Overall GPA: 3.96/4.0;    Ranking: 3/170

- Main Modules: Data Structures, Computer Organization&Architecture, Operating System, Computer Network, Database System, Design and Analysis of Algorithm, Neural Networks and Deep Learning, Artificial Intelligence

## HONOR & AWARDS

---

### Scholarship

The Second Class Scholarship, SCUT

*Oct. 2021*

Chien-Chung Tsai Third Class Scholarship, SCUT

*Oct. 2020*

Science And Innovation Third Class Scholarship, SCUT

*Sep. 2020*

### Awards

Finalist in the 2021 Mathematical Contest in Modeling

*Apr. 2021*

Second Price in Contemporary Undergraduate Mathematical Contest in Modeling

*Nov. 2021*

## RESEARCH EXPERIENCE

---

### Unsupervise Relation Extraction | South China University of Technology

*Aug. 2021- Present*

Advisor: Ziqian Zeng, Assistant Professor at SHIEN-MING WU School of Intelligent Engineering

- Task: given a sentence, its subject and object then extract the relation between them
- Used pre-train textual entailment model to get pseudo label
- Proposed novel approaches to exploit top2 prediction and to fine-tune MNLI model
- Performance enhanced

## SELECTED PROJECT EXPERIENCE

---

### Neural Network Formula Recognition | South China University of Technology

*Aug. 2021- Jan. 2022*

Advisor: Qianli Ma, professor and doctoral supervisor at School of Computer Science & Engineering, South China University of Technology

- Task: Given images of mathematical formula then output their representations in LaTeX
- Used ResNet as encoder and a Transformer as decoder to build a network. Used Teacher Forcing to train
- Used Mask Language Model as a method to pretrain the model, ExactMatch improve 1.93%
- EditDistance reached 95.88% and ExactMatch reached 88.04%
- Used Fastapi and Streamlit to build user interface and web service

### Auto Image Classification Project | South China University of Technology

*Dec. 2021- Nov. 2021*

Advisor: Xingling Zhang, associate professor at School of Computer Science & Engineering, South China University of Technology

- Combination of web scraper and deep learning

- Input the categories that need to be classified, then related samples will be scraped from Bing and then be used to train a classifier based on ResNet
- Web service deployment base on flask and Nginx

### **Online Shopping Mall Project** | South China University of Technology

*Aug. 2021- Sep. 2021*

Advisor: Shehui Bu, professor at School of Computer Science & Engineering, South China University of Technology

- Built an online shopping mall for customers, merchants
- Goods information can be easily updated, customers and merchants can be informed timely
- Used Springboot to build Web application and used Vue to build user interface

### **Face Recognition Project** | South China University of Technology

*Jul. 2021- Dec. 2021*

Advisor: Guihua Wen, professor and doctoral supervisor at School of Computer Science & Engineering, South China University of Technology

- Used framework face\_recognition to compress the image, circled the face and extract face features

## **ACTIVITIES**

---

Internet Technology Center | member

*Nov. 2019 - Nov. 2020*

- Develop Web Applications. e.g. Applications for online quizzes
- Maintain Official website of the department

## **SKILLS**

---

- **Language:** English (TOEFL total 92), Chinese (native), Cantonese (native)
- **Programming Languages:** C++, Python, Java, HTML, JS
- **Frameworks:** Pytorch, flask, transformers, Springboot, Vue