

Tianyin Wang

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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 | SCUT

Aug. 2021- Present

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

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

SELECTED PROJECTS

Neural Network Formula Recognition | SCUT

Nov. 2021- Dec. 2021

Advisor: Qianli Ma, professor and doctoral supervisor at School of Computer Science & Engineering, SCUT

- 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, performance improved
- Used Fastapi and Streamlit to build user interface and web service

Auto Image Classification Project | SCUT

Nov. 2021- Dec. 2021

Advisor: Xingling Zhang, associate professor at School of Computer Science & Engineering, SCUT

- Topic: 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 | SCUT

Aug. 2021- Sep. 2021

Advisor: Shehui Bu, professor at School of Computer Science & Engineering, SCUT

- Task: 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

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