



Zhe WANG (Lionel)

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EDUCATION & QUALIFICATIONS

The Hong Kong Polytechnic University

B.S.in Financial Technology and Artificial Intelligence & Minor in Applied Mathematics

HK SAR, China

09, 2019 – now

- GPA: 3.0/4.3
- Rank: 5/21
- Honors: Second Class Upper

University of Cambridge, Girton College (Summer School)

Mathematics for Engineering

Online

07, 2021 – 08, 2021

- GPA: 90/100

RESEARCH EXPERIENCE

The University of Hong Kong (The implementation of medical Visual Questioning Answering)

Advisor: Lequan Yu (Assistant Professor, Department of Statistics and Actuarial Science, HKU)

HK SAR, China

09, 2021 – now

- The project aims to explore that how to generate a electronic medical records with a medical image by combining NLP and CV.
- Reviews literature on medical VQA fields. Example: MMBERT: Multimodal BERT Pretraining for Improved Medical VQA.
- Conduct a survey in medical image analysis and medical report generation. Example: [Tutorial](#).
- Refresh some codes from other people's paper.(Still in progress).

The Hong Kong Polytechnic University (Undergraduate Research and Innovation Scheme (URIS))

Advisor: Bo Yang (Assistant Professor, Department of Computing, PolyU)

HK SAR, China

09, 2021 – now

- The project aims to develop a set of deep learning algorithms to reconstruct 3D head anime (head model of anime/cartoon characters) purely from 2D images.
- Review literature on 3D reconstruction fields. Example: Learning Object Bounding Boxes for 3D Instance Segmentation on Point Clouds.
- Learn some fundamental knowledge about Computer Vision: I am learning some courses, which teaches reconstruct 3D models of animation character head with only 2D image inputs. Given a 2D RGB anime head image, synthesize (i.e., render) it from different camera angle.
- Refresh some codes from other people's open source web. (Still in progress)

Tsinghua University (Legal document processing by NLP)

Advisor: Zhiyuan Liu (Associate Professor, Department of Computer Science and Technology, THU)

Beijing, China

03, 2021 – 05, 2021

- The project aimed to build a dataset of legal documents and process the data with appropriate methods, which will eventually be applied to the automatic generation of legal documents and the training of legal intelligent question and answer model.
- Wrote a web crawler to get some text information from Website: I crawled legal contract data from 3 open source government websites, finally we got about 100,000 data, then I wrote a program to transfer the data to text-pdf contrasted dataset.
- Reviewed literature related to process legal document by NLP, learnt some fundamental concepts in processing legal document and legal intelligent retrieval.

- The project aims to propose a Chinese benchmark for social media language understanding.
- Assist to process some text dataset: I annotate the Weibo blogs data and divided the words, fix the wrong annotated data from the dataset, then write a program to process the dataset.
- Review literature related to document privacy and recommendation system, get familiar with **Pytorch** and **Tensorflow**.
- Write part of the codes for the paper in preparation and fix some bugs from the source code. Prepare working paper with co-authorship. Learn citation method and academic writing skills to write an academic paper.

UPCOMING PUBLICATIONS

Zexin Lu, Keyang Ding, **Zhe Wang**, Jing Li, and Lemao Liu.
"A Chinese Benchmark for Social Media Language Understanding." (*Manuscript in preparation*)

INDUSTRIAL EXPERIENCE

Jecsuwe Company (An education startup) Datong, China
Co-founder (Technical Director) 07, 2021 – now

- Writing a WeChat mini-program of the company: The mini-program aims to post the advertisement so that users can search and filter for suitable candidate, schedule a meeting, sign the contract and conduct in-app purchase.

China Telecom Datong, China
Software Engineer 05, 2020 – 07, 2020

- Conducting some web development, helping fix some bugs and re-design the web page.
- Developing a small program for a lottery activity: the one who topped up more than 1000 RMB could get an opportunity to join the lottery and the gift would be automatically send to the receiver.

PROJECT WORK

Application privacy risk compliance detection technology based on NLP (Student Asistant) 03, 2021 – 04, 2021
Supervisor: Prof. Xiapu Luo

- Assisting to annotate the wrong data in the dataset, there was a 0.1% percent error rate in 100,000 Weibo data, I wrote a program to find and annotate them, then converted the dataset into 2 huge tensors in order to calculate the Kappa value of them.

SMART LAB (LAB homepage) 08, 2020 – 09, 2020

- Developing a lab website using HTML, JavaScript and CSS, there are totally 5 pages: Home, Publications, News, People, Contact.
- Maintaining the lab website, helping the advisor to update the news and the people.

AWARDS

URIS Scholarship: Group project with funding HK\$30,000 and scholarship HK\$7,000
County Government Scholarship: The first prize of the county in Univeristy Entrance Exam with scholarship RMB¥30,000
Outbound Exchange Scholarship: The summer school in University of Cambridge with scholarship HK\$5,000

MISCELLANEOUS

Student Assistant: Object-Oriented Design and Programming. (EIE3320)
Student Assistant: Electronic Music: The Impact of Technology on Digital Lifestyle (EIE1D02)

SKILLS

Programming Language: Python (Pytorch, Tensorflow), HTML, CSS, JavaScript, L^AT_EX
Language: Mandarin (native), English (fluent)