Li, Tianle
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Education

The Hong Kong University of Science and Technology   09/2017-06/2021(Expected)

B.S. in Data Science and Technology; Minor in Big Data Technology

GPA: 3.7/4.3 (10%)   Major GPA: 4.0/4.3 (2%)   Awards: Dean's List

Research Projects   *Social Computing*

Tabular Data Analysis and Recomendation   02/2021-Present

Research Intern supervised by Mengyu, Zhou   Microsoft Research Lab - Asia, Bei Jing

- Defined a new research problem**:** leveraged the distribution and linguistic semantics of table to automatically recommend user manipulations and select valuable data to highlight / visualize the trend based on pretrained SOTA model.
- Exploited semi-pretrain technique to encode table / column / cell representation and realized good performance in domstream multi-tasks. This work will be submitted to SIGMOD 2022.
- Built key phrase extraction algorithm at bakends to support word cloud visualization in Forms/Teams in Insight Intelligence project, which will be deployed into production soon.

Fake News Detection in Social Network   08/2020-Present

Final Year Project Supervised by Prof. Raymond, Wong   HKUST, Hong Kong

- Devised a sophiscated heterogeneous transformer to fuse the context-based method and social-content based method in fake news detection task.
- Obtained 5% improvement in measure socres compared to the previous SOTA methods in widely-used public datasets. This work is submitted to ICDM 2021.

Generate Adversarial Examples in Text with Budget Constraint   05/2020-11/2020

Research Assistant supervised by Prof. Yang, Yi funded by GRF   HKUST, Hong Kong

- Proposed novel adversarial examples generation algorithm against CNN, LSTM and BERT models with synonym substitution on sentiment classification task
- Reduced more than 80% queries required to successfully generate an adversarial example by a devised variation of genetic algorithm, learning global information with logistic regression and employing local information with dynamic direction vectors. This work is submitted to EMNLP 2021 and is under review.

Experience

Google Machine Learning Winter Camp   01/2020

Participant   Google, Shanghai

- Implemented person portrait matting algorithm based on UNet-structure network
- Built style transfer system on matting person portrait images with utilization of ResNet and CycleGAN to transfer images from realistic style to Simpson's Cartoon style on GCP

Crypto Exchange   06/2019-08/2019

Research Intern in Artificial Intelligence and Big Data Analytics Department   ASTRI, Hong Kong

- Scraped and denoised the transaction data of cryptocurrency from online trading platform
- Applied LSTM on cryptocurrency exchange trading strategy according to business indexes like exponential moving average and relative strength index

1st prize – Code for Good Challenge hackathon – J.P. Morgan   10/2019

- Led a team to build a management system for Premiere Performances
- Implemented search function, nodes graph visualization, engagement and likeness of clients in the database
- Won the bid from Premiere Performances with recognition of managers from J.P. Morgan

CSL Data Analytics Case Competition   09/2019-12/2019

- Scraped reviews from HK.trip.com and classified positive and negative keywords for distinct targeted customers through sentiment analysis and word clouds
- Exploited deep wide learning model and analysis results to recommend desired hotels for online customers

Awards

- Dean's List
- University Scholarship Scheme for Continuing Undergraduate Students
- Social Career Volunteer Awards: Community Heroes Awards

Skills

- Python (Pytorch, Tensorflow), Multi-GPU Processing, C++, JAVA, SQL, MATLAB, Blockchain, etc.