JIANG Maiqi

My Page: https://themaigod.github.io/

Email: maiqi.jiang@connect.polyu.hk
Mobile: +86-18923818690 OR +852 64787940

Education

- **The Hong Kong Polytechnic University** — 65th in QS Ranking
  *M.Sc. in Information Technology; GPA: **3.69/4.30** with **Distinction Award*** — *8.2021 - 1.2023*
  Courses: *Data Structures And Database Systems, Big Data Computing, Computer Vision And Image Processing, Machine Learning And Data Analytics, Software Engineering And Development, Natural Language Processing, Artificial Intelligence Concepts*

- **Northeastern University, China** — National 985 Project
  *B.S. in Biomedical Engineering; Average Score: **79.75/100*** — *9.2017 - 6.2021*
  Courses: *The C++ Programming Language, Data Structure, Principle of Database, SCM Theory and Application, Medical Informatics, Digital Signal Processing, Computer Networks, Digital Image Processing, Embedded System Technology*

Experience

- **Knowledge Graph Survey** — The Hong Kong Polytechnic University
  *Researcher, guided by **Dr HUANG Xiao*** — *10.2022 - Now*
  - **Content**: Lead the survey group and control the direction and progress of the survey
    Read and understand hundreds of related papers
    Classify these papers into proper categories and write brief introductions of them in a clear structure into the survey

- **Heterogeneous Network Learning** — The Hong Kong Polytechnic University
  *Researcher, guided by **Dr HUANG Xiao*** — *11.2021 - 2.2023*
  - **Subject**: Automated Heterogeneous Network learning with Non-Recursive Message Passing
  - **Content**: Released a state-of-the-art model, called Automated GNN with Non-Recursive message passing to solve Heterogeneous Information Networks (HINs), which can automatically extract the structural as well as semantic information of HINs.
    Redesigned the experiment setting and reproduced the results of baselines on Pytorch to compare fairly.
  - **Code Repository**: Benchmarks for Heterogeneous Network https://github.com/themaigod/HINBaselines
  - **Impact**: Plan to submit **a paper on KDD2023 (CCF A conference) as the second author**
    Finished dissertation with grade **A**

- **Semi-supervised Learning on Whole Slide Image (WSI)** — Northeastern University, China
  *Researcher, guided by **Dr CUI Xiaoyu**, Chair of Biomedical Informatics Department* — *11.2018 - 6.2021*
  - **Subject**: A weakly supervised framework driven by eye-tracking in pathological diagnosis
  - **Content**: Released a new framework to combine the information from original WSI and eye tracking, which used eye tracking region as a semi-supervised label for the region of interest. It reached a better performance on WSI classification than other baselines.
  - **Code Repository**: WSI process Library https://github.com/themaigod/WSIGeneralProcess
    WSI with Gaze Processing https://github.com/themaigod/WSI-with-Gaze-Processing
    WSI with Gaze Modeling https://github.com/themaigod/WSI-with-Gaze-Modeling
  - **Impact**: A Bachelor thesis with grade Great

Intern

- **Industrial Practice** — Neusoft Inc.
  Developer — *9.2020*

Projects

- **Gene Regulatory Network (Bayes Model)**: A Bayes network for building a graph to explain genes relation and influence with other genes. So it can be further used to targeted medicine development. Tech: Matlab (10.2018)
- **Cellular Automaton based Traffic Simulation System (Cellular Automaton)**: Traffic Simulation System built by Cellular Automaton, in order to test which road shape is suitable to avoid traffic jam. It is with a software copyright. Tech: Matlab. (9.2018)
- **Cell Segmentation (Computer Vision, Image Processing)**: Segment the cell from original medical images by traditional image processing methods and deep learning methods, such as UNet. Tech: Python, OpenCV, Pytorch (7.2019)
- **Time Analysis for Different Deep Learning Packages (Computer Vision, Natural Language Processing)**: Build a series of tasks of Computer Vision and Natural Language Processing to evaluate time cost for different Deep Learning Packages, including Pytorch, Tensorflow and PaddlePaddle. Tech: Python, Pytorch, Tensorflow, PaddlePaddle, OpenCV (4.2022)
- **A document-based QA System (Natural Language Processing)**: This QA system is trained from SQuAD Dataset and can solve No-Answer problem. It reached F1 score 77.748, which is similar to the 67th result in Leaderboard. There is also a web page for using this model online. Tech: Pytorch, Transformers, flask (5.2022)

Research Interest

- **Research Area**: Graph Neural Network and Computer Vision
- **Relevant Topics**: Image Classification and Segmentation, Attention, Multiple Instance Learning, Few-shot Learning, Heterogeneous GNN, Differential NAS

Honors and Awards

- **Honorable Mention twice (2019, 2020) on The Mathematical Contest in Modeling / The Interdisciplinary Contest in Modeling**: (Data Mining, Natural Language Processing) Evaluation Model for Economy Cost and Evaluation Model for Product based on Sentiment Analysis
- **Third Prize twice (2018, 2019) on Liaoning Province in China Undergraduate Mathematical Contest in Model**: (Optimization, Mathematical Programming)
- Excellent Leader for Social Practice - 2018

Skills Summary

- **Languages**: Python, Matlab, C/C++, JavaScript, SQL, Bash, JAVA
- **Frameworks**: Pytorch, Transformers, PyG, DGL, OpenCV, Flask, Django, Scikit-learn, Scipy, Numpy
- **Tools**: Git, Docker, Pycharm, Linux, Terminal, MiniConda