JIXIANG YU

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EDUCATION

Dongbei University of Finance and Economics (DUFE) *09/2018 - 07/2022*
Bachelor of Science
Overall GPA: 90.66/100 (major ranking: 1/27)

City University of Hong Kong (CityU) *09/2022 - 07/2026(expected)*
Doctor of Philosophy
Supervisor: Prof. Ka-chun Wong
Research Interest: Machine Learning and Data Science in Bioinformatics; Neural Network Design and Applications; Industrial Big Data.

AWARDS & HONORS

Student Member of China Computer Federation (CCF)
Outstanding Graduate of Dalian (3%). Mar., 2022
Excellent Graduation Thesis. May., 2022
Best Report in 5th ICDLT. Jun., 2021
Advanced Individual in Subject Competition of DUFE (2%). May., 2021
Second Prize in the Contemporary Undergraduate Mathematical Contest in Modeling(CUMCM) (5%). Nov., 2020
First Prize in the CUMCM(Liaoning Division). Nov., 2020
First-class Comprehensive Scholarship of DUFE for the second semester of 2020-2021 Academic Year(rank: 1st)
Second-class Comprehensive Scholarship of DUFE for the first semester of 2020-2021 Academic Year(rank: 2nd)
First-class Comprehensive Scholarship of DUFE for the second semester of 2019-2020 Academic Year(rank: 1st)

RESEARCH PROJECTS & EXPERIENCES

Research on Big Data Service Process Optimization and Dynamic Resource Allocation in Hybrid Cloud Environment, National Natural Science Foundation of China (71772033). Supervisor: Prof. Ming Gao.
05/2020 - 05/2022

- Research objective: to solve the problem of low resource consumption on cloud better from a higher perspective.
- Improved the Transformer, a representative architecture in deep learning, customized its position encoding and designed an attention mask to describe and characterize the graph structured data.
- Designed a fusion module to integrate GNN and Transformer into an end-to-end architecture.
- Tools and technologies applied: Python, Deep Learning, Pytorch, Pytorch-geometric, Linux, and etc.

Theory and Method of Real-Time Distribution Service Operation Management under O2O Mode, key project of National Natural Science Foundation of China (71831003) (Sub project of Prof. Jiafu Tang, work with Prof. Ming Gao.)
05/2021 - Present(In Progress)

- Research objective: to optimize order delivery process of Meituan Preferred Group Buying service.
- Constructed a simulation environment of this delivery process.
- Designed a deep reinforcement learning algorithm based on A2C paradigm to perceive fine-grained spatial-temporal environment states, and make delivery decisions.
- Tools and technologies applied: Python, Pytorch, A2C, Object Oriented Programming, and etc.

Research on Blood Mass Spectrometry for Disease Diagnosis. (Key member of cooperation between Prof. Gao and Prof. Qian of Shanghai Jiao Tong University.)
06/2021 - Present(In Progress)

- Research objective: to make full use of blood spectrometry for disease diagnosis.
- Mainly responsible for novel deep learning algorithm design, feature interpretability research, and manuscript(methodology part) writing.
- Tools and technologies applied: Python, Deep Learning, Pytorch, Keras, Captum, and etc.

PUBLICATIONS

[**J1**] *Workflow Performance Prediction based on Graph Structure Aware Deep Attention Neural Network.* (**First Author**, Journal of Industrial Information Integration, Feb., 2022), Impact Factor: *10.063*

[**C1**] *A Transformer Based Sales Prediction of Smart Container in New Retail Era.* (**Co-First Author**, 2021 5th International Conference on Deep Learning Technologies (ICDLT), Jul., 2021)

[**C2**] *Workload Prediction of Cloud Workflow based on Graph Neural Network.* (**Co-First Author**, The 18th International Conference on Web Information Systems and Applications (WISA2021), Sep., 2021)

[**J2 (Under Review)**] *Workload Prediction of Cloud Workflow based on Fusion Architecture of GNN and Transformer.* (**First Author**, Submitted to IEEE Transactions on Neural Networks and Learning Systems)

ACADEMIC CONFERENCES

- **(Oral presentation)** 2021 5th International Conference on Deep Learning Technology
- YEF (Youth Elite Forum) 2021
- 2021 BAAI Conference (online)
- 2020 BAAI Conference (online)
- **(Oral presentation)** The 18th International Conference on Web Information Systems and Applications (WISA2021)

SKILLS & SERVICES

Computer Languages	C, Python, Java, JavaScript, LaTeX
OS	Windows, Ubuntu, macOS
English	IELTS(6.5), CET-6(548)
Reviewer	IEEE Access

Last Update: Jun., 2022.