

YANG FEI

21 Lower Kent Ridge Road, Singapore

☎ +65 8885-1417 ✉ [Email](#) [LinkedIn](#) [Github](#) [Personal Site](#)

Education

National University of Singapore

PhD of Computer Science

Aug 2025 – Now (Ongoing)

Singapore

National University of Singapore

Master of Computing, Computer Science: Overall GPA: 3.92

Aug 2023 – May 2025

Singapore

Shanghai Jiaotong University

Bachelor of Engineering, Information Security: Major GPA: 3.74

Sep 2019 – Jun 2023

Shanghai

Research Interests

My background includes expertise in **Graph, Natural Language Processing, and Cybersecurity**. I am deeply interested in applying these skills to real-world challenges such as **generative recommender systems, network anomaly detection, and social intelligence**. I'm also eager to explore graph-based neural networks and community, as well as innovative applications of **Large Language Models** within these areas.

PUBLICATIONS

- [1] Yimin Shi, **Yang Fei**, Shiqi Zhang, Haixun Wang, Xiaokui Xiao, *You Are What You Bought: Generating Customer Personas for E-commerce Applications*, (**SIGIR'25**), Oct 2024.
- [2] Keke Huang, Yimin Shi, Dujian Ding, Yifei Li, **Yang Fei**, Laks Lakshmanan, Xiaokui Xiao, *ThriftLLM: On Cost-Effective Selection of Large Language Models for Optimal Query Performance*, (**VLDB'25**), Feb 2025.

Research Experience

A Persona-Based LLM-assisted Recommender System

Dissertation Project

Nov 2023 – Aug 2024

Prof. Xiaokui Xiao

- Introduce "Persona" with integrated LLMs and present a methodology for integrating these customer personas with GCN-based product recommendation models.
- Improved recommendation accuracy by 5-15% over sota methods, optimizing customer personas through the GPLR model for e-commerce applications.

Network Anomalous Node Identification

Graduation Project (A Journal Article in Cyber Security and Data Governance)

Jan 2023 – Jun 2023

Prof. Jiaping Gui

- Build an anomaly detection system based on graph features to quickly and effectively perform anomalous node detection and reliability analysis in Local Area Networks.
- Integrate traffic analysis and port scanning to generate graph-based node reliability models, achieving a 90% detection accuracy across private-collected and public datasets.

UCInspire Research Program

Summer Research

Jun 2022 – Sep 2022

Prof. Zhou Li

- Develop an anomaly detection system using GNNs like graph2vec and NetWalk to detect abnormal behaviors in network provenance data.
- Apply sequence learning techniques for temporal graph snapshots, improving detection performance against APT by enhancing data provenance analysis.

SJTU CSE CITtrip II

College Innovation Program (Excellent Project in Shanghai Division, Highest Honor)

Mar 2021 – Mar 2022

Prof. Jie Guo

- Implemented BERT and LDA models to classify harmful speech from Twitter's public dataset, focusing on sentiment analysis and topic modeling to quantify risk levels.
- Constructed social network graphs to track and analyze the influence and centrality of anonymous users, identifying key nodes responsible for spreading harmful content.

SJTU Machine Vision and Intelligence Group (MVIg)

Research Internship

Dec 2021 – Jun 2022

Prof. Cewu Lu

- The main research direction is human pose reconstruction.

Selected Course Projects

- Paxos-based Distribution System | *Java*** **Apr 2024**
• Implement a distribution system based on Paxos protocol.
- Basic File Safe | *GNU Make, GCC, C/C++*** **Oct 2022**
• Overload system calls ensures the security of important personal data from the operating system level.
- Covid-19 Mortality Prediction | *ML, Python, Scikit-learn*** **Apr 2024**
• Leverage different models to make prediction on a dataset of Covid-19.

Internship

Shanghai Artificial Intelligence Laboratory **Jun 2024 – Oct 2024**
Algorithm Engineer/AI Researcher

- We conduct research in **AI Application** department, **Urban Computing** group, focusing on AI Agents, especially in domains like traffic and society.
- Develop and apply Multi-Agent Systems (MAS) using random graph models to optimize agent task assignments and organizational structure in tasks like code generation and societal simulations.

Huawei ICT Cloud Core Network **Aug 2022 – Oct 2022**
Software Development Engineer

- We provide a full range of **core network software**, help operators build an agile, efficient and reliable core network.
- In charge of building a **DDB micro-service** with **Go Cell framework**, realize **synchronous data processing**.

Academic Awards

- 2023 Shanghai Outstanding Graduates; **Top 3%** **Jun 2023**
- Top Cybersecurity Student Scholarship; **Top 3%** **Nov 2022**
- Outstanding Undergraduate Scholarship of SJTU; **Top 15%, 3×Recipient** **Nov 2020 - 2022**
- MCM/ICM: Mathematical Contest in Modeling; **Meritorious Winner** **Apr 2021**
- Merit Student of SJTU **Apr 2020**

Skills and Interests

Technical Skills: Python, C++, Go, SQL, MATLAB, Git, Latex, Zotero, Office, etc.

Libraries: Pytorch, Numpy, Pandas, Seaborn, Networkx, etc.

Languages: Mandarin (Native), English (**TOEFL: 109 / GRE: 322**), French (Beginner)

Other Interest: Basketball, Hiking, Scuba Diving