Feng Yu

Education

Sep 2020 – Jun 2023 Master Candidate, Cyberspace Security, Fujian Normal University, Fuzhou, China. GPA: 87.88/100.

(expected) Research interests: Federated Learning, Edge Computing and Privacy.

Advisor: Prof. Hui Lin and Prof. Xiaoding Wang.

Sep 2016 – Jun 2020 Bachelor, Computer Science and Technology, Hunan University of Science and Technology,

Xiangtan, China, GPA: 3.34/4.0.

Publications

> Feng Yu, Hui Lin, Xiaoding Wang, et al. Communication-Efficient Personalized Federated Meta-Learning in Edge Networks, IEEE Transactions on Network and Service Management (TNSM), 2023.

- > Feng Yu, Hui Lin, Xiaoding Wang, et al. Blockchain-empowered secure federated learning system: Architecture and applications[J]. Elsevier Computer Communications, vol. 196C, 2022, pp. 55-65.
- > Feng Yu, Qingxin Lin, Hui Lin, Xiaoding Wang, Privacy Enhanced Federated Learning Scheme based on Generative adversarial networks. Chinese Journal of Network and Information Security, Under review, 2022.
- > Ankita. Sharma, Shalli Rani, Moayad Aloqaily, Syed Hassan Ahmed Shah, Rohit Sharma, **Feng Yu**, Mohammad Mehedi Hassan, An Efficient Hybrid Deep Learning Model for Denial of Service Detection in Cyber Physical Systems, IEEE Transactions on Network Science and Engineering (TNSE), 2023.
- > Qingxin Lin, Kuai Xu, Yikun Huang, **Feng Yu**, Xiaoding Wang, "Privacy-Enhanced Data Fusion for Federated Learning Empowered Internet of Things", Mobile Information Systems, vol. 2022, Article ID 3850246, 8 pages, 2022.

Patents and Software

- > Feng Yu, Hui Lin, Xiaoding Wang, A new type of sports hairband [P]. Utility model patent, Fujian Province: CN214904410U,2021-11-30.
- > Jieyu Yang, Lei Jiang, Feng Yu et al., "LSTM-based article intelligent generation system", Computer Software Copyright, Hunan University of Science and Technology, 2019SR1143843.
- > Bowei Zhang, Wenhua Song, Xiaoliang Wang, **Feng Yu**, "Kuang-Chi Security Cloud Monitoring and Early Warning System for Meeting Cars on Curves", Computer Software Copyright, 2019SR0274946.
- > Qian Chen, Qiongbin Zhang, Jieyu Yang, **Feng Yu** et al., "Hele Yiren Pilot Mutual Assistance Platform", Computer Software Copyright, Hunan University of Science and Technology, 2019SR0545706

Projects and Experiences

Sep 2022

Software Development Intern, Lenovo Computer Technology Co. LTD, Shanghai

- . Jun 2022
- > Responsible for ESXI VM and LXCA installation automation script programming; Familiar with Git, Maven, Jenkins, shell and PowerShell script syntax;
- > Learn the BMC, IPMI, Redfish, LXCA platforms, and the use of Jira and Bugzilla; Master LXCA CFC project back-end code workflow, solve several bugs in CFC project;
- > Build CFC Server prompt functionality with the Dojo framework; Lean the programming and development of Server Configuration Pattern function module;
- > Design and create the **log platform** based on ELK and Kafka cluster (3 nodes), and further optimize Kafka performance.

Shell/Java/Python/Web programming BUG fix Log platform

Jun 2020 Dec 2019

Application of recommendation algorithm based on RL, HNUST, Undergraduate Graduation Thesis

- > Develop the collaborative algorithms via matrix factorization and bandit algorithms;
- > Apply Python to extract preference features from movie data and propose a novel recommendation algorithm based on the idea of gambling machines.

Python Reinforcement Learning Recommendation algorithm Collaborative Filtering Bandit algorithm

May 2019 Jun 2018

Service account development, HNUST, Team leader

- > Participate in the back-end development of the **College's Alumni Association service account**;
 - > Responsible for the back-end development, front-end and back-end test docking and service launch of the **Waku Yiren pilot mutual aid service account**.

Java/Web programming

Oct 2018

Text Intelligence Challenge, Dagan Data, Team member

Jul 2018 > Build a model to predict the category of text through the body of long text data;

> Apply machine learning algorithms (such as SVM, TF-IDF, XGBoost, etc.), and obtain a **Top 10% score**.

Python SVM TF-IDF XGBoost Ensemble Learning

Jun 2018

ACM-ICPC training team, HNUST, Team member

Dec 2016

- > Master basic data structure, such as stack, queue, linked list, binary tree, graph, and lookup set, tree array, line tree, bisect graph, etc.
- > Master basic algorithms, such as dichotomy, DFS, BFS, dynamic programming, shortest path algo-

Data Structure | Algorithm | C++ | Java | Python



Teaching

- > Computer Networks, Teaching Assistant, 2020.09 2021.01.
- > Programming Experiment (**Data structure** and **C/C++ programming**), Teaching Assistant, 2017.09 2019.06.
- > Advanced Mathematics and Professional Basic Courses, Assistant Class Teacher, 2017.09 2018.06.

🔼 English Language

College English Test Band 4:489 **IELTS: 6.5**

College English Test Band 6: 432

Skills

Programming Language: C/C++, Python, Golang, Java, SQL, HTML, CSS, JavaScript, Bash.

Frameworks & Tools: Git, PyTorch, TensorFlow, FATE, FedLab, Flower, FISCO BCOS, Numpy, Pandas, Scikit-learn,

CUDA, ŁTĘX, Flask, ElasticSearch, Logstash, Kibana, Kafka, SpringBoot, React, Angular, Docker,

Certificates: Intermediate Software Designer, CCF Certified Software Professional Top 10%, Sep 2018.

Main Honors and Awards

- 2022 **Second-class Academic Scholarship** of Fujian Normal University.
- Outstanding Graduate of Hunan Province (3%, 18/518), Outstanding Graduate of HNUST (3%). 2020
- 2020 Outstanding Undergraduate Graduation Thesis of College.
- 2017 & 2019 National Encouragement Scholarship (twice), Outstanding Student Leader of HNUST.
- 2017 2019 First prize of HNUST (twice), Second prize of HNUST, Merit Student of HNUST (twice), College Merit Student Model.
 - Third prize in Hunan Division of "Ladder Competition" of Chinese universities. 2018
 - 2018 **Second prize** of "Langiao Cup" Hunan Province (twice, C++ and Java).
 - 2018 Bronze Prize of CCPC Invitational Competition and the 10th Xiangtan Program Design Competition.
 - 2018 First prize of National College Students Electronic Creative Innovation Competition in the national preliminary competition, **Second prize** in the final competition.
 - Second prize in Undergraduate programming competition of HNUST. 2017
 - 2015 **Second prize of Hubei Province** in National Mathematics League for High School Students.

Interests

Sports: Running, Climbing, Badminton, Table Tennis, Basketball, Extreme Sport.

Misc: Travelling, Writing and Learn new technologies, such as federated learning, continual learning, generative adversarial network, deep reinforcement learning, meta learning, recommendation system and related applications.