Feng Yu

♀ Fuzhou, Fujian, China
i 2 Dec 1998, Dawu, Hubei, China

Ph.D. candidate in Computer Science

Bio. I am now a third-year master student at College of Computer and Cyber Security, Fujian Normal University, working with Professor Hui Lin on Federated Learning and privacy protection.

Research interests. Recently, my research work covers several issues: federated learning, blokchain, generative adversarial network, differential privacy and privacy-preserving. Currently, I am interesting in variety of approaches for federated learning (Federated Graph Machine Learning, etc.) and related applications.

Education

Sep 2020 – Jun 2023(expected)

Master Candidate, Cyberspace Security, Fujian Normal University, Fuzhou, Fujian.

Sep 2016 - Jun 2020

Research interests: Privacy Protection, Federated Learning and related applications. Bachelor, Computer Science and Technology, Hunan University of Science and Technology, Xiangtan, Hunan GPA: 3.3/4.0, TOP 15%

Publications

- > Feng Yu, Hui Lin, Xiaoding Wang, et al. "Communication-Efficient Personalized Federated Meta-Learning in Edge Networks", submitted to IEEE Transactions on Network and Service Management. Under review. 2022.
- > Feng Yu, Hui Lin, Xiaoding Wang, et al. Blockchain-empowered secure federated learning system: Architecture and applications[J]. 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. Journal of Network and Information Security, Accepted, 2022.
- > As a Contributor to Federated Learning for Future Intelligent Wireless Networks included in Deep Federated Learning Based on Knowledge Distillation and Differential Privacy edited by Yao Sun, Chaoqun You, Gang Feng, and Lei Zhang. 2022
- > Feng Yu, Hui Lin, Xiaoding Wang, An athletic headband, Chinese Patent. 2021.
- > Three Software Copyrights, 2018.

Teaching

- > Computer Network, Teaching Assistant, 2020.09 2021.01.
- > Programming Experiment (Data structure and C++ programming), Teaching Assistant, 2017.09 2019.06.

</> Projects & Experiences

Sep 2022 Jun 2022

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

- > Familiar with Git, Maven, Jenkins, shell and PowerShell script syntax, responsible for ESXIVM and LXCA installation automation script programming;
- > Understand the BMC, IPMI, Redfish and LXCA platforms, and understand the use of Jira and Bugzilla; Familiar with LXCA CFC project back-end code workflow, solve several bugs in CFC project;
- > Learn about the Dojo framework, Web programming: Add CFC Server prompt functionality; Understand the programming and development of Server Configuration Pattern function module;
- > Understand ELK, Kafka; Log platform deployment and Kafka performance optimization based on ELK+Kafka cluster (3 nodes);

Shell/Java/Python/Web programming | BUG fix | Log visualization module design

Jan 2022 Dec 2021

Lightweight key-value storage engine based on skip list, FJNU, Open source projects

> C++ programming to achieve data increase, delete and change check, data display, file loading and database size display;

> **\O**: github.com/fzhiy/MySkipList.

Skip list | Key-value database | C++

Jun 2020 Dec 2019

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

- > Python programming is used to extract preference features from movie data and apply it to recommendation.
- > The collaborative filtering algorithm is realized by matrix factorization, and the recommendation is achieved by Bandit algorithm.

Reinforcement Learning | Recommendation algorithm | Python

Jun 2018 Dec 2016

ACM-ICPC training team, HNUST, team member

> Master the 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 algorithm, etc.

Data Structure | Algorithm | C++ |



Languages

English: Reading 00 Writing Listening

IELTS: 6.5

CET-4:489

CET-6:432

Speaking

Skills

Programming Language: Familiar with C/C++, Understand Golang, Python, Java.

Familiar with Git, Data Structure, STL, Object-Oriented Design, TCP、HTTP, Network Program-Programming Skills:

ming, Kafka, MySQL, Operation commands in Linux, ET_EX

Understand Principles of Operating System, Load Balance, High availability, HTML, CSS, Ja-

vaScript, Elasticsearch

Familiar with Redis underlying data structure, Redis simple application Redis:

Other Skills: Familiar with Federated Learning, Understand Recommendation System, Deep Reinforce-

ment Learning, Blockchain

Certificates: Intermediate Software Designer

🔨 Honors & Awards

Second-class Academic Scholarship of Fujian Normal University.

2020 Outstanding Graduate of Hunan Province, Outstanding Graduate of HNUST.

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.

2018 **Third prize** in Hunan Division of "Ladder Competition" of Chinese universities.

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.

First prize of National College Students Electronic Creative Innovation Competition in the national preliminary 2018 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.

Travelling, Writing and Learn new technologies. Misc: