# 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

### ACM-ICPC training team, HNUST, team member

Dec 2016

- > 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++



English: Reading Writing Listening

Speaking

CET-4:489 CET-6:432

• • • • • IELTS : 6.5

## **Skills**

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

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

ming, Kafka, MySQL, Operation commands in Linux, ET<sub>E</sub>X

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

vaScript, Elasticsearch

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

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

ment Learning, Blockchain

**Certificates:** Intermediate Software Designer

# Honors & Awards

2022 **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 (three times).

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

2018 Second prize of "Lanqiao 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.

## Interests

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

Misc: Travelling, Writing and Learn new technologies.