

Feng Yu

ac.fzhzy.net github.com/fzhiy [\(+44\) 0752 978 2367](tel:+447529782367) fy274@exeter.ac.uk

Education

- Sep 2023 – Present **Ph.D. student**, Computer Science, University of Exeter, Exeter, UK.
Research interests : Federated Learning, Continual Learning, Edge Artificial Intelligence.
Advisor : *Prof. Jia Hu* and *Prof. Geyong Min*.
- Sep 2020 – Jun 2023 **M.Eng.**, Cyberspace Security, Fujian Normal University, Fuzhou, China. **GPA** : 87.88/100.
Research interests : Federated Learning, Edge Computing and Privacy.
Advisor : *Prof. Hui Lin* and *Prof. Xiaoding Wang*.
- Sep 2016 – Jun 2020 **B.Eng.**, 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[J]. IEEE Transactions on Network and Service Management, 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[J]. Chinese Journal of Network and Information Security, 2023, 9(3) : 113-122.
- > 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[J], IEEE Transactions on Network Science and Engineering, 2023.

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.
- > Bawei 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, Qiongbai 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

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|----------------------|---|
| Sep 2022
Jun 2022 | Software Development Intern, Lenovo Computer Technology Co. LTD, Shanghai <ul style="list-style-type: none">> 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; Learn 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. <p>Shell/Java/Python/Web programming BUG fix Log platform</p> |
| Jun 2020
Dec 2019 | Application of recommendation algorithm based on RL, HNUST, Undergraduate Graduation Thesis <ul style="list-style-type: none">> 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. <p>Python Reinforcement Learning Recommendation algorithm Collaborative Filtering Bandit algorithm</p> |
| May 2019
Jun 2018 | Service account development, HNUST, Team leader <ul style="list-style-type: none">> 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. <p>Java/Web programming</p> |

Oct 2018	Text Intelligence Challenge, Dagan Data, Team member
Jul 2018	
	<ul style="list-style-type: none"> > 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.
	<div style="display: flex; gap: 5px;"> Python SVM TF-IDF XGBoost Ensemble Learning </div>
Jun 2018	ACM-ICPC training team, HNUST, Team member
Dec 2016	
	<ul style="list-style-type: none"> > 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 algorithm, etc.
	<div style="display: flex; gap: 5px;"> Data Structure Algorithm C++ Java Python </div>

Service and Teaching

- > IEEE Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), Conference Volunteer, 2023.11.
- > 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, \LaTeX , Flask, ElasticSearch, Logstash, Kibana, Kafka, SpringBoot, React, Angular, Docker, Redis.
Certificates : Intermediate Software Designer, CCF Certified Software Professional Top 10%, Sep 2018.

Main Honors and Awards

- 2023 China Scholarship Council and University of Exeter Scholarships.
- 2022 **Second-class Academic Scholarship** of Fujian Normal University.
- 2020 **Outstanding Graduate** of Hunan Province (3%, 18/518), Outstanding Graduate of HNUST (3%).
- 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 "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.
- 2017 **Second prize** in Undergraduate programming competition of HNUST.
- 2015 **Second prize of Hubei Province** in National Mathematics League for High School Students.

Interests

Sports : Running, Cycling, 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.