Xiaoli Yang

Internet Intern ◇ Teaching Assistant ◇ Graduate Student

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EDUCATION

University of California, Davis, Sacramento, America Sept. 2020 - Present
Master of Science in Computer Science, GPA: 3.7+/4.0

Huazhong University of Science and Technology, Wuhan, China Sept. 2017 - Jun. 2020
Master of Engineering in Computer System Architecture, GPA: 82.65/100.00

Hunan University, Changsha, China Sept. 2013 - Jun. 2017
Bachelor of Engineering in Software Engineering, GPA: 3.62/4.50

PROJECTS

The Comparison and Analysis of ServiceMesh Feb. 2021 - Present
Researcher *Huawei, China*

· Studied and researched 3 main ServiceMeshes (Istio, Kube-proxy, EdgeMesh)
· Compared and analyzed these ServiceMeshes form architecture, functionality, and performance
· Designed a comprehensive tester for their performance (DOING)

Cross-edge Cloud Service Discovery and Traffic Governance Jan. 2021 - Feb. 2021
Developer *Huawei, China*

· Studied the architecture of edge cloud platform, and researched its APIs
· Conduced an exprimentation to verify the feasibility of this project
· Implemented automatic environment creation by RESTful APIs (including 5000+ LoC)

The Performance Testing of EdgeMesh Nov. 2020 - Dec. 2020
Tester *Huawei, China*

· Studied the design and functionality of EdgeMesh by reading its code and documentations
· Designed a test program to evaluate the performance of EdgeMesh (including 100+ LoC)
· Outputted a comprehensive report to analyze the test results

The Optimization of the Scalability for Container File System Sept. 2017 - Jun. 2020
Researcher *HUST, China*

· Modified FxMark to meet the requirement of testing the scalability of Overlay2 (including 1000+ LoC)
· Found 2 main performance bottlenecks: File Redirection and Rename Lock Contention
· Presented Memorable Redirection to improve File Opening by 10%
· Designed Free-lock Rename to improve Rename, Copy-on-Write and Deletion by 100%-300%

Cloud Computing Mar. 2018 - Jul. 2018
Assistant Writer *HUST, China*

· Searched and organized relevant materials, including 100+ reports, journals and papers
· Assisted to write about 100000 words of the book

Power Load Forecasting Visualization Platform Dec. 2016 - Jun. 2017
Developer *HNU, China*

· Designed the platform framework and database, supporting TB-level data access
· Implemented a SVM-based prediction algorithm with an average accuracy of 97%
· Designed and developed 20+ visualization charts
· Improved the cross-platform compatibility and the scalability of prediction algorithms

PUBLICATIONS

- Hong Mei and Hai Jin. Cloud Computing: the Infrastructure and Service Engine of the Information Society[M]. Science and technology of China press, ISBN 978-7-5046-8289-5.

EXPERIENCE

Edge Cloud Innovation Lab
Development Engineer

Nov. 2020 - Present
Huawei, China

· Studied the architecture of an edge cloud platform (KubeEdge)
· Skilled in using containerization technology (Docker, Kubernetes, ServiceMesh, etc)
· Designed and conduced a comprehensive performance testing of EdgeMesh
· Participated in the development of Cross-edge Cloud Service Discovery and Traffic Governance
· Compared and analyzed several ServiceMeshes (Istio, Kube-proxy, EdgeMesh)

College of Engineering
Teaching Assistant

Jan. 2021 - March. 2021
UC Davis, America

· Hosted Office Hours of ECS 150 (Operating Systems) to 200 students
· Guided 3 course projects (shell, thread library, file system)
· Interviewed 50+ students for the interactive grading
· Participated in 5 grading activities (3 projects, 2 midterms)

Cluster and Grid Computing Lab
Network Administrator

Mar. 2019 - Jun. 2020
HUST, China

· Administrated and maintained a HPC cluster, including 300+ compute nodes
· Monitored and reported 10+ potential risks of the cluster
· Repaired 100+ software or hardware malfunctions on the cluster

SKILLS

Languages	English (TOEFL 100, GRE 322+4)
	C, C++, Go, Python
	HTML, Script, MySQL
Interests	Architecture: Lock Contention, File System, Linux Kernel
	Cloud Computing: Docker, Kubernetes
	Edge Computing: KubeEdge, ServiceMesh
	Machine Learning: Neural Network, Optimization Algorithm
	Visualization: Data Mining, Prediction Algorithm