

# XIAO SUN

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Gender: Male



## EDUCATION

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**Harbin Institute of Technology**, Cyberspace Security, *Master* 2022.08 - 2025.03

- **Research direction:** Task hybrid deployment and scheduling in CloudNative environment; Resource allocation method in CloudNative environment

**Harbin Institute of Technology**, Computer Science and Technology, *Bachelor* 2018.08 - 2022.06

- **Professional direction:** Parallel Computing and Distributed Computing

## PAPERS

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**Fast GPU-based Subgraph Search Using Parallel Vertex Matching**, TPDS (CCF-A) Fourth author 2023

- A CUDA-accelerated subgraph matching algorithm, responsible for the processing and experimental part of the graph data set.

**EVRM: Elastic Virtual Resource Management Framework for Cloud Virtual Instances**, FGCS (JCR Q1) Third author in submission

- Virtual machine resource management method based on deep reinforcement learning in cloud environment, responsible for source code transplantation and experimentation in qemu-kvm environment.

**Minimizing Service Latency through Image-based Microservice Caching and Randomized Request Routing in Mobile Edge Computing**, IOTJ (SCI-I) First author in submission

- Undergraduate graduation project, a service caching and task request routing method based on random algorithm.

## SCHOOL PROJECT

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**Resource management methods of virtual machines and Docker** Link 2022.08-2023.11

- **Platform transplantation and experimental parts.** An automatic parameter tuning method for virtual machines or containers based on deep reinforcement learning A2C algorithm.

**CloudNative hybrid deployment method for LS&BE DNN tasks** 2022.11 - till now

- **Shenzhen Higher Education Stability Support Plan Project, my research topic.** The hybrid deployment method of LS&BE tasks in the cloudNative environment realizes traffic scale prediction and hybrid orchestration of LS&BE tasks, and improves system resource utilization while ensuring the SLO requirements of LS tasks.

## PERSONAL PROJECT

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**KeepE5alive** Link

- Automatically call Microsoft application API through Github Action to realize automatic subscription of Office 365 applications.

**GoBang Game** Link

- A distributed online web backgammon game.

## PROFESSIONAL SKILL

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- English level: CET-6 542
- Programming Language: Golang, Python, Java, C
- Cloud computing direction: Familiar with Kubernetes, understand Kafka and Redis
- Basic knowledge: Git, computer network, database MySQL, operating system, etc.

## CERTIFICATE OF HONOR

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- 2022 Outstanding Graduation Project of Harbin Institute of Technology; 2022 Outstanding Student of Harbin Institute of Technology
- 2020 National College Student Mathematics Contest Provincial First Prize; 2020 National College Student Mathematical Modeling Contest Provincial First Prize; 2019 National College Student English Contest National Third Prize
- 2019 People's Scholarship First Prize; 2020 People's Scholarship Third Prize; 2021 People's Scholarship Second Prize