

Name: Leng Xue (冷 雪)  
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## Education

2015.09 – present	<b>Ph.D</b>	<b>CS, Zhejiang University (ZJU)</b>	<b>Supervisor:</b> Prof. Yan Chen
	<b>Research Interests:</b>	the security and reliability of SDN/NFV, microservices	
2018.10 – 2019-06	<b>Visiting Scholar</b>	<b>EECS, Northwestern University (NU), USA.</b>	
	<b>Research Interests:</b>	the reliability of microservices	<b>Supervisor:</b> Prof. Hai Zhou
2011.08 – 2015.06	<b>Bachelor</b>	<b>CS, Harbin Engineering University (HEU)</b>	
	✦ <b>Ranking:</b> 2/159	<b>GPA:</b> 91.19	<b>CET-6:</b> 466

## Experience

2018.06	<b>IEEE/ACM IWQoS 2018</b>	<b>Banff, Canada</b>	<b>Paper Presentation</b>
2016.05 – 2016.09	<b>Internship at Cisco</b>		
	✦	Developed an SDN controller, used for deploying and managing network for Enterprise Data Center (Alibaba)	
2014.06 – 2014.08	<b>Internship at Dalian Neusoft</b>		
	✦	Developed a LAN Messaging APP, realizing multiuser instant messaging in LAN	
2015.09 – 2016.06	<b>Minister of Postgraduate Association in CS. ZJU</b>		
2013.09 – 2014.06	<b>Vice-President of Student Union in CS. HEU</b>		

## Skills

<b>Basic course:</b>	Algorithm, Data Structure, Discrete Mathematics, OS
<b>Language:</b>	Python, Go, Java, HTML, MySQL

## Publication

### Conference:

- Xue Leng**, Tzung-Han Juang, Yan Chen, Han Liu. AOMO: an AI-aided Optimizer for Microservices Orchestration. In Proceedings of *SIGCOMM Posters and Demos*, Beijing, China, August 19–23, 2019
- Xue Leng**, Kaiyu Hou, Yan Chen, Kai Bu, Libin Song. “SDNKeeper: Lightweight Resource Protection and Management System for SDN-based Cloud.” in *2018 IEEE/ACM 26th International Symposium on Quality of Service (IWQoS)*, pp. 1-10, Banff, Alberta, Canada, June 4-6, 2018.

### Journal:

- Xue Leng**, Kaiyu Hou, Yan Chen, Kai Bu, Libin Song, You Li. “A Lightweight Policy Enforcement System for Resource Protection and Management in the SDN-based Cloud”, *Computer Networks (CN)*, Volume xx, Issue xx, (2019): xx-xx. DOI: 10.1016/j.comnet.2019.05.022
- Yinbo Yu, Xing Li, **Xue Leng**, Libin Song, Kai Bu, Yan Chen, Jianfeng Yang, Liang Zhang, Kang Cheng, and Xin Xiao. “Fault Management in Software-Defined Networking: A Survey”, IEEE *Communications Surveys & Tutorials (COMST)*, Volume 25, Issue 4, (2019): 349-392.
- Yan Chen, Xitao Wen, **Xue Leng**, Bo Yang, Li Erran Li, Peng Zheng, Chengchen Hu. “Optimization Framework for Minimizing Rule Update Latency in SDN Switches”, *ZTE Communications*, 2018(4).
- Xitao Wen, Kai Bu, Bo Yang, Yan Chen, Li Erran Li, Xiaolin Chen, Jianfeng Yang, and **Xue Leng**. “RuleScope: Inspecting Forwarding Faults for Software-Defined Networking”, in *ACM/IEEE Transaction on Networking (ToN)*, Volume 25, Issue 4, Aug. 2017: 2347-2360.

## Project

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- 2018.09 – present      **Optimization of Microservices Orchestration**
- ✦ A ranking-based p-batch scheduling mechanism of microservices on Kubernetes
  - ✦ A proactive prediction-based scaling mechanism of microservices on Kubernetes
- 2017.07 – 2020.12      **The 13th Five-year, National Key R&D Program of China, Special of Cyberspace Security**
- ✦ Responsible for project application and implementation as a core member
  - ✦ Responsible for the design and implementation of active defense mechanism in SDN/NFV
- 2017.07 – 2020.06      **Key Research and Development Plan of Zhejiang Province**
- ✦ Responsible for project application and implementation as a core member
  - ✦ Responsible for the design and implementation of active defense mechanism in SDN-based Cloud
- 2017.03 – 2018.03      **SDNKeeper**
- ✦ A lightweight access control system for protecting and managing resources for SDN-based Cloud
  - ✦ Controlling network deployment and accessing requests to defense unauthorized attack
- 2015.03 – 2017.04      **RuleScope**
- ✦ A detection and troubleshoot method for Priority fault and Missing fault in SDN flow tables
  - ✦ **Develop Environment:** Ryu Controller, Mininet, Python
- 2014.08 – 2014.09      **LAN Instant Messaging Software**
- ✦ Realize function of register, login, chat and record storage.
  - ✦ **Key Technology:** SOCKET, Multithreading Concurrency, File Storage
- 2014.06 – 2014.07      **Hotel Guestroom Management System**
- ✦ Realize management of rooms, including UI and backstage
  - ✦ **Key Technology:** struts2 Framework、MVC architecture、MySQL、JAVA

## Honors

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- 2018.12      Award of Honor for Graduate (ZJU)
- 2017.12      Award of Honor for Graduate (ZJU)
- 2016.12      Outstanding Graduate Leader Award (ZJU)
- 2015.12      Excellent Athlete (CS. ZJU)
- 2015.06      Excellent Graduate (HEU)
- 2014.06      Triple-A Student of Heilongjiang Province
- 2014.01      Excellent Volunteer of the 6th International Snow Sculpture Competition of College Students
- 2013.10      Pacemaker to Merit Student of HEU (10/12000)
- 2012, 2013.10      Advanced Individual of Summer Social Practice in HEU (2 times)
- 2013.05      Outstanding Youth League Cadre (HEU)
- 2012, 2013, 2015.05      Outstanding Youth League Member in HEU (3 times)

## Awards

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- 2012.12      National Scholarship
- 2015.05      BaoLongDa Scholarship
- 2011-2015      First-Class Scholarship of HEU (7 times)
- 2014.10      National Innovation Research Project for College Student
- 2014.06      **Second-class Award** in Heilongjiang Province of the 9th "BoChuang Cap" National College Students' Embedded IoT Design Competition
- 2014.06      **Excellence Award** of the 5th "LanQiao Cap" National Competition for Software and Information Technology
- 2013.11      **First-class Award** of the 19th Science and Technology Innovation Competition of HEU
- 2013.09      **Third-class Award** of the 7th National College Students' IoT Innovation and Entrepreneurship Competition
- 2013.08      **Third-class Award** of the 3rd "SaiBaiTe Cap" National College Students' IoT Design Competition