Pengyuan Zhou

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RESEARCH INTERESTS	*Edge Computing, Vehicular Network, Content Delivery Network, Information Centric Networks*	
EDUCATION	**University of Helsinki, Finland**	Expected November, 2019
	PhD, Computer Science	
	Supervisor: *Prof.Dr.Jussi Kangasharju (link), Prof.Dr.Pan Hui (link)*	
	University of Science and Technology Beijing, China	January 2015
	M.Sc, Electrical Engineering	
	Supervisor: *Prof.Dr.Siquan Hu*	
	University of Science and Technology Beijing, China	July 2011
	B.Sc, Electrical Engineering	

TECHNICAL SKILLS

Programming : Java, C++, C, BASH, python, HTML5, LaTeX

Tools/Framework :
- Edgex Foundry (*Edge Computing*),
- Icarus (*Information Centric Networking*),
- Veins (*Vehicular Networking*),
- SUMO (*Vehicular traffic*),
- Darknet (*Object detection*)

Develop : Linux Kernel, Raspberry pi, IEEE 802.11p, Android application

Language : Chinese (*native*), English (*business, GRE(320/340)*)

EXPERIENCE	**Hong Kong University of Science and Technology, Hong Kong**	2018.02-06
	Visiting Researcher	
	Collaborated with HKUST-DT System and Media Laboratory for Edge Computing powered Vehicle Network.	
	Host: *Prof.Dr.Pan Hui*	
	UNINETT, Norway	2017.02-06
	Visiting Researcher	
	Collaborated with UNINETT for clustering user request upon similarity to optimize CDN performance.	
	Host: *Prof.Dr.Otto J Wittner*	
	Ruijie Networks, China	2013-2014
	Network Engineer Intern	
	Participated in National 863 subproject on SDN.	

SCHOLARSHIP	**Marie Curie ITN Funding for PhD study**	2015-2018
	CleanSky ITN, funded by the Marie-Curie-Actions within the 7th Framework Programme of the European Union (EU FP7)	
	Master program full scholarship	2012-2015
	Rank #1 in entrance examination	
	Dept. of Electrical Engineer, University of Science and Technology Beijing (USTB)	

PROJEDTS	**Where's My Data**	**Academy of Finland**

The project investigates distributed data management in edge
computing environments, targeting Industrial Internet applications.
PI:*Prof.Dr.Jussi Kangasharju (Univ. of Helsinki)*

2018-2019

	CleanSky ITN	**Europe Union**

http://www.cleansky-itn.org/
CleanSky aims to develop innovative ideas in the emerging areas
within the eco-system of cloud computing.
Collaboration: Nine university of industrial institutes in Europe, China and USA. PI: *Prof.Dr.Xiaoming Fu (Univ. of Gottingen)*

2014-2018

DEMO   **ARHUD**

The demo shows a road test in Helsinki city center, for sharing augmented vehicular vision facilitated
by edge computing.
Link: *https://youtu.be/OCvmMErTXIs*
Role: Major developer

SemanticSLAM

The demo shows a real test to realize SLAM and object detection simultaneously in real time via
offloading to edge server.
Link: *https://youtu.be/V4um2N_RgZU*
Role: Sole developer

PAPER

- [In Review] Analyzing Multipath Computation Offloading for Mobile Augmented
  Reality: Latency, Scheduling and Optimizations   INFOCOM'20
  T. Braud, **P. Zhou**, J. Kangasharju and P. Hui
  IEEE INFOCOM 2020

- [In Review] Edge-facilitated Augmented Vision in Vehicle-to-Everything Network   RTSS'19
  P. Zhou, T. Braud, W. Zhang, P. Hui and J. Kangasharju
  40th IEEE Real-Time Systems Symposium

- Enhanced Augmented Reality Applications in Vehicle-to-Edge Networks   ICIN'19
  P. Zhou, W. Zhang, T. Braud, P. Hui and J. Kangasharju
  22nd Conference on Innovation in Clouds, Internet and Networks

- DeCloud: Truthful Decentralized Double Auction for Edge Clouds   ICDCS'19
  A. Zavodovski, S. Bayhan, N. Mohan, **P.Zhou**, W. Wong, J. Kangasharju
  39th International Conference on Distributed Computing Systems

- ERL: Edge Based Reinforcement Learning for Optimized Urban Traffic Light Control   SmartEdge'19
  P. Zhou, T. Braud, A. Alhilal, P. Hui and J. Kangasharju
  2019 Percom Workshop on Smart Edge Computing and Networking

- Augmented Reality Applications in Vehicle to Edge Networks   MECOMM'18
  P. Zhou, W. Zhang, T. Braud, P. Hui and J. Kangasharju
  2nd ACM SIGCOMM Workshop on Mobile Edge Communications Networking

- Anveshak: Placing Edge Servers In The Wild   MECOMM'18
  N. Mohan, A. Zavodovski, **P. Zhou** and J. Kangasharju

2nd ACM SIGCOMM Workshop on Mobile Edge Communications Networking

- Managing Data in Computational Edge Clouds MECOMM'17
  N. Mohan, **P. Zhou**, K. Govindaraj, and J. Kangasharju
  1st ACM SIGCOMM Workshop on Mobile Edge Communications Networking

- Grouping Computational Data in Resource Caches of Edge-Fog Cloud CrossCloud'17
  N. Mohan, **P. Zhou**, K. Govindaraj, and J. Kangasharju
  ACM EuroSys Workshop on CrossCloud Infrastructures and Platforms

- Profiling and Grouping Users to Edge Resources According to User Interest Similarity CAN'16
  P. Zhou and J. Kangasharju
  ACM CoNEXT Workshop on Cloud-Assisted Networking

ACADEMIC SERVICES

China Europe Association for Computer Science — Co-founder & Chair
http://ceacs.eu/ — 2017 - now
Aims at promoting Industry-University-Research Collaboration
in computer science between China and Europe.

Smart City Security Workshop (link) — Chair
To promote the communication and collaboration between
Shanghai City ICT expert team and Univ. of Helsinki, Univ. of Aalto and Univ. of Turku.

Edge Hackathon (link) — Chair
The first hackathon focusing on Edge Computing with 2000 EUR as winner prize.

3rd International CleanSky Conference — Organizer

2nd International CleanSky Summer School — Organizer

IEEE ICC'18 CQRM — Reviewer

TALKS

- Enhanced Augmented Reality Applications in Vehicle-to-Edge Networks — Paris, 2019
  Paper Presentation at ICIN 2019
- ERL: Edge Based Reinforcement Learning for Traffic Light Control — Kyoto, 2019
  Paper Presentation at SmartEdge 2019 (Percom)
- Augmented Reality Applications in Vehicle to Edge Networks — Budapest, 2018
  Paper Presentation at MECOMM 2018 (SIGCOMM)
- The era of Edge — Helsinki, 2017
  Introduction at Edge Hackathon
- User Interest Profiling — Dagstuhl, 2016
  Invited talk at GI-Dagstuhl Seminar 16353
- Profiling and Grouping Users to Edge Resources — Irvine, California 2016
  Paper Presentation at CAN 2016 (CoNEXT)

TEACHING

Networked Systems and Services — TA, 2018
Univ. of Helsinki

Networked Systems and Services — TA, 2017
Univ. of Helsinki

C++ — TA, 2014
USTB

REFERENCES Prof.Dr.Jussi Kangasharju (link)
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Prof.Dr.Pan Hui (link)
Hong Kong University of Science and Technology, University of Helsinki
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Prof.Dr.Xiaoming Fu (link)
Georg-August-University of Goettingen
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