

Pengyuan Zhou

Page: <https://zpymyyn.github.io/>
Github : <https://github.com/zpymyyn>

pengyuan.zhou@helsinki.fi
(+358) 400256702

RESEARCH INTERESTS EDUCATION

AIoT, Edge Computing, Connected Vehicules, Mobile AR

University of Helsinki, Finland (world ranking: 63)

Defense planning in Feb, 2020

PhD, Computer Science

Supervisor: *Prof.Dr.Jussi Kangasharju ([link](#)), Prof.Dr.Pan Hui, IEEE FELLOW ([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, L^AT_EX

Tools/Framework :

- Edgex Foundry (*Edge Computing*),
- Tensorflow, Keras, Tensorflow Federated (*Machine Learning*),
- Veins, SUMO (*Connected Vehicules*),
- Darknet (*Object detection*),
- Icarus (*Information Centric Networking*)

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 <i>CleanSky ITN, funded by the Marie-Curie-Actions within the 7th Framework Programme of the European Union (EU FP7)</i>	
	Master program full scholarship 2012-2015 <i>Rank #1 in entrance examination</i> <i>Dept. of Electrical Engineer, University of Science and Technology Beijing (USTB)</i>	
PROJEDTS	Where's My Data Academy of Finland The project investigates distributed data management in edge computing environments, targeting Industrial Internet applications. PI: <i>Prof.Dr.Jussi Kangasharju (Univ. of Helsinki)</i> 2018-2019	
	CleanSky ITN Europe Union http://www.cleansky-itn.org/ 2014-2018 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: <i>Prof.Dr.Xiaoming Fu (Univ. of Gottingen)</i>	
DEMO	ARHUD The demo shows a road test in Helsinki city center, for sharing augmented vehicular vision facilitated by edge computing. Link: Video 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: Video Role: Sole developer	
PAPERS	• [In Revision] Edge-facilitated Augmented Vision in Vehicle-to-Everything Network TVT P. Zhou , T. Braud, A. Zavodovski, Z. Liu, F. Xian, W. Zhang, P. Hui and J. Kangasharju Transactions on Vehicular Technology	
	• Multipath Computation Offloading for Mobile Augmented Reality PERCOM'20 T. Braud, P. Zhou , J. Kangasharju and P. Hui IEEE International Conference on Pervasive Computing and Communications Acceptance rate: 14.2%, CCF B	
	• 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 Acceptance rate: 31.3%	

- 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
Acceptance rate: 19.6%, CCF B
- 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 @ SmartEdge Workshop
- Augmented Reality Applications in Vehicle to Edge Networks MECOMM'18
P. Zhou, W. Zhang, T. Braud, P. Hui and J. Kangasharju
2018 SIGCOMM @ MECOMM Workshop
- Anveshak: Placing Edge Servers In The Wild MECOMM'18
N. Mohan, A. Zavodovski, **P. Zhou** and J. Kangasharju
2018 SIGCOMM @ MECOMM Workshop
- Managing Data in Computational Edge Clouds MECOMM'17
N. Mohan, **P. Zhou**, K. Govindaraj, and J. Kangasharju
2017 SIGCOMM @ MECOMM Workshop
- Grouping Computational Data in Resource Caches of Edge-Fog Cloud CrossCloud'17
N. Mohan, **P. Zhou**, K. Govindaraj, and J. Kangasharju
2017 EuroSys @ CrossCloud Workshop
- Profiling and Grouping Users to Edge Resources According to User Interest Similarity CAN'16
P. Zhou and J. Kangasharju
2016 CoNEXT @ CAN Workshop

ACADEMIC SERVICES

China Europe Association for Computer Science

<http://ceacs.eu/>

Aims at promoting Industry-University-Research Collaboration in computer science between China and Europe.

Co-founder & Chair
2017 - now

Smart City Security Workshop (link)

To promote the communication and collaboration between Shanghai City ICT expert team and Univ. of Helsinki, Univ. of Aalto and Univ. of Turku.

Chair

Edge Hackathon (link)

The first hackathon focusing on Edge Computing with 2000 EUR as winner prize.

Chair

3rd International CleanSky Conference

Organizer

2nd International CleanSky Summer School

Organizer

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
Paper Presentation at CAN 2016 (CoNEXT)

Irvine, California 2016

TEACHING

Networked Systems and Services
Univ. of Helsinki

TA, 2018

Networked Systems and Services
Univ. of Helsinki

TA, 2017

C++
USTB

TA, 2014

REFERENCES

Prof.Dr.Jussi Kangasharju ([link](#))
University of Helsinki
jussi.kangasharju@helsinki.fi

Prof.Dr.Pan Hui ([link](#))
Hong Kong University of Science and Technology, University of Helsinki
pan.hui@helsinki.fi

Prof.Dr.Xiaoming Fu ([link](#))
Georg-August-University of Goettingen
fu@cs.uni-goettingen.de