

# Liangcheng Yu

+1 215-594-1474 • leoyu@seas.upenn.edu • liangchengyu.com

## Education

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### University of Pennsylvania

*Ph.D. Candidate, Computer and Information Science*

**Philadelphia, USA**

*Sep. 2019 - Present*

### KTH Royal Institute of Technology

*M.Sc., Electrical Engineering and Computer Science (EECS)*

**Stockholm, Sweden**

*Aug. 2016 - Apr. 2019*

- Program: Wireless Systems/Information and Network Engineering, GPA: 5.0/5.0
- KTH-ZJU 3+2 joint program (1st year concurrent with 4th year of bachelor)

### ETH Zürich, Switzerland

*Degree Project, Computer Science*

**Zürich, Switzerland**

*Feb. 2018 - Sep. 2018*

### Zhejiang University

*B.Eng., Automation*

**Hangzhou, China**

*Sep. 2013 - Aug. 2017*

## Publication

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- **Liangcheng Yu**, John Sonchack, Vincent Liu, "Mantis: Reactive Programmable Switches" Proceedings of the ACM SIGCOMM Conference (**SIGCOMM 2020**), New York, USA, Virtual Event, August 2020.
- Xiuzhen Guo, Yuan He, Xiaolong Zheng, **Liangcheng Yu**, Omprakash Gnawali, "ZigFi: Harnessing Channel State Information for Cross-Technology Communication", IEEE/ACM Transactions on Networking (**ToN 2020**), vol. 28, no. 1, pp. 301-311, February 2020.

## Research & Industrial Experience

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### Berkeley NetSys Lab, UC Berkeley

*Visiting Student Researcher*

**California, USA**

*Sep. 2018 - Apr. 2019*

- Exploited behavioral ML (Deep Reinforcement Learning) as an alternative abstraction for heuristic-based network packet scheduling.

### Swedish Institute of Computer Science (RISE SICS)

*Research Intern*

**Kista, Stockholm**

*Oct. 2017 - Feb. 2018*

- Merged EST-CoAPs stack on Contiki OS clients and REST CA Server for LwM2M certificate bootstrap in IoT networks.

### Ericsson

*Software Developer Intern*

**Kista, Stockholm**

*Aug. 2017 - Jan. 2018*

- Part of a team for the verification of 4G/5G RAN product and the development of automated test using JCAT.

### Tsinghua University

*Research Intern*

**Beijing, China**

*Jun. 2017 - Aug. 2017*

- Applied SVM to decode CSI sequence bits for Zigbee to WiFi cross-technology communication with a receiver-initiated mechanism for heterogeneous networks.

**Communication Theory Department, KTH**

*Student Research Assistant*

**Stockholm, Sweden**

*Dec. 2016 - May 2017*

- Implemented HMM variants with EM, Viterbi algorithms in MATLAB to monitor household smart meter power consumption non-intrusively.

## Services

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- Shadow PC Member, EuroSys 2021
- Reviewer, IEEE/ACM Transactions on Networking 2020
- Reviewer, IEEE Wireless Communications Magazine 2020
- Student Volunteer, SIGCOMM 2020

## Teaching Assistant

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- CIS 553: Networked Systems, Vincent Liu (Spring 2020), University of Pennsylvania
- CIT 595: Operating Systems, Boon Thau Loo (Summer 2020), University of Pennsylvania
- CIS 551: Computer and Network Security, Sebastian Angel (Fall 2020), University of Pennsylvania

## Awards

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- Ph.D. Fellowship, University of Pennsylvania, 2019
- Google Summer of Code 2019 student with Network Simulator 3 (NS-3), 2019
- Master thesis grant, Zeno Karl Schindler Foundation (Geneva), 2018
- Honorable mention, IEEE ComSoc student competition, 2017
- ETH Zürich Swiss-European Mobility Program (SEMP) scholarship, 2017
- KTH student ambassador for Information and Network Engineering, 2017
- KTH one-year scholarship for academic excellence, 2017
- Honorable mention at the Mathematical Contest in Modeling (MCM), 2016
- Outstanding student leader award of Zhejiang University, 2014
- Scholarship for outstanding merits at Zhejiang University, 2014

## Technical Skills

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- Programming: C/C++, Python, P4, JAVA
- Platform: Network Simulator 3 (NS-3), Programmable Switch, Software-defined Radio, Linux

## MISC

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- **Languages** English (Proficient), Chinese (Native), German (Elementary)
- **Hobbies** Piano, badminton, classical music, active MOOC learner
- **Extracurricular Activities** I was actively involved in cultural and volunteer activities during bachelor, sharing time with people from different backgrounds. I served as co-president for ZJU chapter of FACES (Forum for American/Chinese Exchange at Stanford), a Sino-US cultural student organization, during 2015-2016. I was a junior member in ShARE (Share Analysis on

Regional Economies) during 2013-2014 and attended the world seminar held at Porto, Portugal. I studied at Undergraduate Public Administration of Chu Kochen Honors College (elite college at ZJU) during 2015-2016. I also spent time at diverse organizations such as ZJU Entrepreneur Magazine as an editor during 2013-2014 and so forth.