Kenuo **Xu**

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Education

Peking University   *Beijing, China*

PH.D. IN COMPUTER SCIENCE   *Sep. 2020 - Present*

- In the Software-hardware Orchestrated ARchitecture (SOAR) group; advisor: Prof. Chenren Xu
- Design a visible light backscatter communication system that supports concurrent transmission for low latency purpose.
- Design a visible light communication system with spike cameras as receivers to achieve high data rate and dynamic range.
- See publications for more research.

Peking University   *Beijing, China*

B.SC. IN COMPUTER SCIENCE   *Sep. 2016 - Jun. 2020*

- Graduated with Excellent Graduate Award

Publications

Low-Latency Visible Light Backscatter Networking with RetroMUMIMO   *ACM SenSys*

KENUO XU, CHEN GONG, BO LIANG, YUE WU, BOYA DI, LINGYANG SONG, CHENREN XU   *2022*

- Enables 8 concurrent VLBC links and reduces networking latency by 92.0%.

RetroV2X: A New V2X Paradigm with Visible Light Backscatter Networking   *Fundamental Research*

CHENREN XU, KENUO XU, LILEI FENG, BO LIANG   *Accepted*

- A practical vehicle-to-everything communication system with visible light.

VLID: Visible Light Backscatter System for Battery-free Internet-of-Things   *IEEE/ACM Transactions on Networking*

CHENREN XU, PURUI WANG, TUOCHAO CHEN, YUE WU, KENUO XU, XIEYANG XU, YANG SHEN, JUNRUI YANG, GUOJUN CHEN, GUOBIN SHEN   *Accepted*

- An end-to-end VLBC solution for battery-free IoT networking.

Renovating road signs for infrastructure-to-vehicle networking: a visible light backscatter communication and networking approach   *ACM MobiCom*

PURUI WANG, LILEI FENG, GUOJUN CHEN, CHENREN XU, YUE WU, KENUO XU, GUOBIN SHEN, KUNTAI DU, GANG HUANG, XUANZHE LIU   *2020*

- Enhance the reliability of autonomous driving with reflective roadsigns that conveys dynamic additional information.

Turboboosting Visible Light Backscatter Communication   *ACM SIGCOMM*

YUE WU, PURUI WANG, KENUO XU, LILEI FENG, CHENREN XU   *2020*

- Improve the data rate of VLBC by 8x (prototype) and 32x (simulation) with advanced modulation schemes.

Honors & Awards

2022	**Merit Student**, Peking University	*Beijing, China*
2021	**First Prize**, Competition of Future Network Technology Innovation	*Nanjing, China*
2020	**Excellent Graduate**, Peking University	*Beijing, China*
2019	**Houston BAA Scholarship**, Peking University	*Beijing, China*
2019	**Merit Student**, Peking University	*Beijing, China*

Activities

Teaching Assistant   *Peking University*

COMPUTER NETWORKS (HONOR TRACK)   *Fall 2019, 2020, 2021(Light), 2022(Light)*

- Organizing the course and answering questions.
- Giving assignments, tutorials, and grading of labs.
- Designing quizzes and grading students' responses.
- Mentoring course research projects (light).

Journal Reviewer

2021