Faculty Name:

Xia Zhou

Faculty Email:

xia@cs.columbia.edu

Lab:

Mobile X Laboratory

Project Title:

Light for Communication, Sensing, and Security

Description:

We are looking for highly motivated students who are interested in developing light-based systems for high-speed communication, fine-grained object tracking, and AI security. Specifically on communication and sensing, we are developing a communication technology that uses a steerable laser beam to track highly-mobile targets while sending data at Gbps levels. The student will work on the integration of the system with an existing virtual reality headset to realize wireless VR. On AI security, we are investigating the protection of live speech video integrity by modulating ambient light to encode verification information. Students will work with PhD students to explore light communication design, feature extraction, as well as experimentation and video collection.

Location of Research:

On Site

# of hrs/week:

30

Department/Program:

Computer Science

Eligibility:

BS, Second Year, BS, Third Year, BS, Fourth Year, MS

To apply, please contact:

Xia Zhou, xia@cs.columbia.edu