

## EDUCATION

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### Columbia University

*PhD in Computer Science; GPA: 4.2/4.0*

Advisors: Xia Zhou, Dan Rubenstein, Vishal Misra

New York, NY

*Sept. 2022 – Present*

### The University of Chicago

*Joint Bachelor of Arts and Master's in Computer Science; GPA: 3.99/4.0, Summa cum laude*

Advisor: Haitao Zheng

Chicago, IL

*Oct. 2018 – Jun. 2022*

## RESEARCH EXPERIENCE

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### Mobile X Lab

*Graduate Research Assistant, Columbia University Computer Science Department*

New York, NY

*Sept. 2022 – Present*

- Leading investigation into the use of modulated light and acoustic signals for detection and prevention of audiovisual deepfakes.
- Developed two pointing, acquisition, and tracking (PAT) frameworks and end-to-end laser-based mobile systems for Gbps networking and mW-level power delivery.

### Security, Algorithms, Networks, and Data (SAND) Lab

*Research Assistant, University of Chicago Computer Science Department*

Chicago, IL

*Oct. 2020 – Jul. 2022*

- Thesis *Towards Systematic Evaluation of Privacy Risks in IoT Video Analytics* quantified efficiency and accuracy of gait, face, and pose recognition models on NVIDIA Jetson and cloud devices.
- Developed video annotation tool and accompanying annotator training guide for large-scale collection of computer vision model data sourced from Chicago [Array of Things](#) nodes

## PUBLICATIONS

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\* Denotes co-primary authors

**Hadleigh Schwartz**, Xiaofeng Yan, Charles J. Carver, Kelly Yen, Xia Zhou. “Protecting the Integrity of Live Speech Videos with Modulated Light.” *In submission*.

Charles J. Carver, **Hadleigh Schwartz**, Toma Itagaki, Zachary Englhardt, Kechen Liu, Megan Graciela Nauli Manik, Chun-Cheng Chang, Vikram Iyer, Brian Plancher, and Xia Zhou. “Set Phasers to Stun: Beaming Power and Control to Mobile Microrobots with Laser Light.” *To be submitted*.

Charles J. Carver\*, **Hadleigh Schwartz**\*, Qijia Shao, Nicholas Shade, Joseph Lazzaro, Xiaoxin Wang, Jifeng Liu, Eric Fossum, Xia Zhou. “Catch Me If You Can: Laser Tethering with Highly Mobile Targets.” *The 21st USENIX Symposium on Networked Systems Design and Implementation (NSDI '24)*. April 2024. **Best demo award and 2nd place SRC winner at ACM MobiCom '23**.

Zhuolin Yang\*, Yuxin Chen\*, Zain Sarwar, **Hadleigh Schwartz**, Ben Y. Zhao, Haitao Zheng. “Towards a General Video-based Keystroke Inference Attack.” *The 32nd USENIX Security Symposium (USENIX Security '23)*. August 2023.

Laszlo Zimanyi, Sumesh B. Krishnan, Emily Williford, Shipra Gupta, Jonathan Sepulveda, **Hadleigh Schwartz**, Frank B. Mallory, Clelia W. Mallory, Olga Dmitrenko, and Jack Saltiel. Translational Diffusion and Unstable Conformer Trapping in Glassy Isopentane at 77 K. *The Journal of Physical Chemistry A*. September 2019.

## HONORS & AWARDS

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ACM MobiCom Best Demo Award	2023
ACM MobiCom Student Research Competition Runner-Up	2023
Columbia CS Department Service Award	2023
Phi Beta Kappa (inducted as a junior)	2021
Student Marshal (appointed by the President of the University of Chicago)	2021
Enrico Fermi Scholar (top 5% in the University of Chicago's computer science major)	2021

## GRANTS & FELLOWSHIPS

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NSDI 2024 Travel Grant	2024
MobiCom 2023 Travel Grant	2023
Columbia School of Engineering and Applied Sciences Presidential Fellowship	2022

## TEACHING EXPERIENCE

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Teaching Development Program, Advanced Track	<i>Jun. 2024 – Present</i>
<i>Multi-year evidence-based teaching certification by Columbia's Center for Teaching and Learning</i>	
Teaching Assistant, CSEE 4119 – Computer Networks	<i>Jan. 2024 – May 2024</i>

## SERVICE

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PhD Co-Coordinator, Emerging Scholars Program	<i>Jan. 2023 – Present</i>
Reviewer, Pre-Submission Application Review Program	<i>Nov. 2022, Nov. 2023, Nov. 2024</i>
Community Outreach Lead and Mentor, compileHer	<i>Nov. 2019 – Jun. 2022</i>