

# Shuang Liang (梁爽)

Homepage: <https://tsliang.top>

Email: [tsliang2001@gmail.com](mailto:tsliang2001@gmail.com)

## EDUCATION

**The University of Hong Kong (HKU), Department of Electrical and Electronic Engineering** Oct. 2024 - Present

**Research Postgraduate, Curriculum:** Ph.D./M.Phil.

**Courses:** *Pattern Recognition and Machine Learning (A), Integrated Circuit Systems Design (B+)*

**Overall GPA:** 4.00/4.30

**Wuhan University (WHU), School of Physics and Technology**

Sep. 2020 - Jun. 2024

Bachelor of Science, Physics

**Courses:** *Methods of Mathematical Physics (100), Electrodynamics (93), Circuit Analysis (96), Quantum Mechanics (90), Thermodynamics and Statistical Physics (93), Computational Physics (Python) (96), C Programming (87)*

**Dissertation:** Constructing Tight-binding Model Based on Deep Learning (*Outstanding Bachelor's Thesis at WHU*)

**Overall GPA:** 3.78/4.00, 89.62/100; **Last two years:** 3.96/4.00, 92.78/100

## PUBLICATIONS

### FIRST AUTHOR & CO-FIRST AUTHOR

<sup>†</sup>These authors contributed equally. \*Corresponding author.

1. Shuang Liang, Yuze Lu, Haimu Liu, Xiaohe Shang, Rongguang Du, Jiamin Ji, Yiling Yu, and Shunping Zhang\*, "Saturable absorption of few-layer WS<sub>2</sub> and WSe<sub>2</sub> at exciton resonance," *Opt. Express* 33, 7266-7277 (2025).
2. Songqi Wang<sup>†</sup>, Shuang Liang<sup>†</sup>, Shaonan Wu<sup>†</sup>, Zhiqi Yang, Jichang Yang, Xinyuan Zhang, Yi Li, Yuhao Zhang\*, Zhongrui Wang\*, Aoyang Zhang\* and Han Wang\*, "A Monolithic Reconfigurable RRAM CIM Array Integrating PUF, TRNG, and a Lightweight Block Cipher for Secure Edge AI," *Accepted by IEDM 25*'.
3. Shuang Liang, Jing He, Guo Zhang\*, Yuan Yuan\* and Yingcong Chen\*, "SDPose: Exploiting Diffusion Priors for Out-of-domain and Robust Pose Estimation," *Under Review at ICLR 26*'.

### CO-AUTHOR PAPERS

1. Jichang Yang<sup>†</sup>, Ning Lin<sup>†</sup>, Meng Xu<sup>†</sup>, Hegan Chen, Zijian Ye, Shuang Liang, Songqi Wang, Yifei Yu, Kwunhang Wong, Xinyuan Zhang, Yi Li, Yuhao Zhang, Xiaojuan Qi\*, Zhongrui Wang\* and Han Wang\*, "TF-LoRA: Training-Free Low-Rank Approximation for Write-Noise-Compensated RRAM Compute-in-Memory Macro Enabling High-Precision and Efficient AI Deployment," *Under Review at IEDM 25*'.

## RESEARCH & INDUSTRY EXPERIENCE

**Research Post-graduate Student | Wang Lab@HKU | Advisor: Prof. Han Wang** Hong Kong SAR, China  
Compute-in-memory AI Accelerator Oct. 2024 - Present

**MLE Intern | Rama Alpaca Co., LTD | Advisor: Prof. Yingcong Chen & Dr. Guo Zhang** Beijing, China  
Computer Vision and AI Perception Algorithm Feb. 2024 – Aug. 2024

**Research Intern | CPCS@WHU | Advisor: Prof. Shengjun Yuan** Wuhan, China  
AI for Science and Computational Physics Oct. 2023 – May 2024

**Research Intern | Xu Lab@WHU | Advisor: Prof. Shunping Zhang** Wuhan, China  
Optoelectronics and Experimental Condensed Matter Physics Sep. 2022 – May 2024

## TEACHING SERVICES

**Teaching Assistant | Department of EEE | HKU** Jan. 2025 - Present

ENGG1330 Computer Programming I (2025 Spring Semester)

ELEC3644 Advanced Mobile Apps Development (2025 Fall Semester)

## LEADERSHIP AND ACTIVITIES

Minister | Department of Press and Publicity | Wuhan University Jul. 2021 - Jul. 2022

Admission Publicity Ambassador | Undergraduate Admission Office | Wuhan University Sep. 2021 – Jun. 2024

## SKILLS

**Programming & HDL:** Python, C, Verilog, C++, Swift, MATLAB, LabVIEW

**Development Skills:** Web Development, iOS Application Development, Object Oriented Programming