Shuang Liang (梁爽)

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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

[†]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_2 and WSe_2 at exciton resonance," *Opt. Express* 33, 7266-7277 (2025).

2. Songqi Wang[†], Shuang Liang[†], Shaonan Wu[†], 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, Chuanmeizhi Wang, Guo Zhang*, Yingcong Chen* and Yuan Yuan*, "SDPose: Exploiting Diffusion Priors for Out-of-domain and Robust Pose Estimation," *Under Review at ICLR 26'*.

CO-AUTHOR PAPERS

1. Jichang Yang[†], Ning Lin[†], Meng Xu[†], 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".

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