

# SIYUAN LIANG

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## EDUCATION

**The Chinese University of Hong Kong**

Aug 2022 - Present

Ph.D. in Computer Engineering (Expected in 2026)

GPA: 3.64/4.0

**Xi'an Jiaotong University**

Aug 2018 - Jul 2022

B.E. in Electrical Engineering (Elite Class)

GPA: 3.78/4.3

Selected Honors/Awards:

- Honorary Graduate -Yuejie Academic Elite Scholarship (2018-2022)
- Meritorious Winner of MCM-2020 (Mathematical Contest In Modeling)

## EXPERIENCES

**Xi'an Action Electronics Co., Ltd**, Assistant Software Engineer

Jul 2021 - Aug 2021

Duties: Developing power control simulation software for PV arrays

**Loten Semiconductor Co., Ltd**, Assistant Hardware Engineer

Jun 2019 - Aug 2019

Duties: Testing and calibrating samples, managing laboratory samples, arranging cargo delivery

## PUBLICATIONS

- [9] RABER: Reliability-Aware Bayesian-Optimization-based Control Layer Escape Routing for Flow-based Microfluidics  
S.Y. Liang, R.L. Fu, M.C. Li, T.-M. Tseng, U. Schlichtmann, T.-Y. Ho, ", " The 43rd ACM/IEEE International Conference on Computer-Aided Design (**ICCAD**), 2024.
- [8] Late Breaking Results: Efficient Built-in Self-Test for Microfluidic Large-Scale Integration (mLSI)  
M.C. Li, H.C. Gu, Y.S. Zhang, **S.Y. Liang**, H. Gasvoda, R. Altay, I. Araci, T.-M. Tseng, T.-Y. Ho and U. Schlichtmann, The 61th Design Automation Conference (**DAC**), 2024.
- [7] LaMUX: Optimized Logic-Gate-Enabled High-Performance Microfluidic Multiplexer Design  
**S.Y. Liang**, Y.S. Zhang, R. Altay, H. Gasvoda, M.C. Li, I.E. Araci, T.-M. Tseng, U. Schlichtmann, T.-Y. Ho, The 61th Design Automation Conference (**DAC**), 2024.
- [6] Rotor Angle Stability Prediction using Temporal and Topological Embedding Deep Neural Network Based on Grid-Informed Adjacency Matrix  
P.Y. Sun, L. Huo, X. Chen, **S.Y. Liang**, Journal of Modern Power Systems and Clean Energy, 2023.
- [5] ARMM: Adaptive Reliability Quantification Model of Microfluidic Designs and Its Graph-Transformer-Based Implementation  
**S.Y. Liang**, M.Lian, M.C. Li, T.-M. Tseng, U. Schlichtmann, T.-Y. Ho, The 42nd IEEE/ACM International Conference on Computer-Aided Design (**ICCAD**), 2023.
- [4] Optimal Inter-area Oscillation Damping Control: A Transfer Deep Reinforcement Learning Approach with Switching Control Strategy  
**S.Y. Liang**, L. Huo, X. Chen, P.Y. Sun, arXiv preprint arXiv:2301.09321, 2023.
- [3] CoMUX: Combinatorial-Coding-Based High-Performance Microfluidic Control Multiplexer Design  
**S.Y. Liang**, M.C. Li, T.-M. Tseng, U. Schlichtmann, T.-Y. Ho, The 41st IEEE/ACM International Conference on Computer-Aided Design (**ICCAD**), 2022.
- [2] Fast Transient Stability Prediction Using Grid-informed Temporal and Topological Embedding Deep Neural Network  
P.Y. Sun, L. Huo, **S.Y. Liang**, X. Chen, arXiv preprint arXiv:2201.09245, 2022.
- [1] Finite Element Analysis based Optimized Vehicle Mounted Antenna Deployment  
**S.Y. Liang**, Y.S. Li, C. Gao, 2021 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting (**APS/URSI**), 2021.

## TEACHING

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|   |  |
|---|--|
| TA of ENGG 2440A Discrete Mathematics                       | Sep 2022 - Dec 2022, Sep 2023 - Dec 2023 |
| TA of ENGG 2780A Statistics for Engineers                   | Jan 2023 - May 2023                      |
| TA of ENGG 1003 Digital Literacy and Computational Thinking | Jan 2024 - May 2024                      |

## SERVICE AND LEADERSHIP

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- Reviewer of ICCAD' 24
- More than 300 hours of social volunteer service.
- CEO of Rhea Tech in technology entrepreneurship competitions during 2020-2022.
- Monitor of class Electrical 81 (Elite Class) during 2018-2022.