

# GUANXING LU

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## EDUCATION

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**M.S., Automation, Tsinghua-Berkeley Shenzhen Institute, Tsinghua University** 2023 - Present

**B.E., Information Engineering, Chien-Shiung Wu College, Southeast University** 2019 - 2023

- **GPA:** 3.9    **Average Score:** 91.4

- **Selected Coursework:** Introduction to Artificial Intelligence (A+), Reinforcement Learning (A+), Modern Numerical Methods (A+), Mathematical Modeling and Experiments (A+), Game Theory (A), Algorithm and Program Design (A), Digit Logic and Computer Architecture (A), Signals and Systems (A), Advanced Algebra for Engineering (A), Advanced Mathematical Analysis (A).

## EXPERIENCE

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**PAttern Learning and Mining (PALM) Lab, Southeast University** Jun. 2021 - Sep. 2022

*Research Intern*

- Subspace clustering & low-rank representation advised by *Prof. Yuheng Jia* and *Prof. Junhui Hou*.
- Student researcher on semi-supervised subspace clustering via tensor low-rank representation.

**National Mobile Communications Laboratory, Southeast University** Sep. 2020 - May 2022

*Research Intern*

- Robust transceiver for massive MIMO downlink advised by *Prof. Wenjin Wang*.
- Designed two robust learning-based transceivers to mitigate the impact of imperfect channel state information.

## PUBLICATION

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**ManiCM: Real-time 3D Diffusion Policy via Consistency Model for Robotic Manipulation** Preprint 2024

G. Lu\*, Z. Gao\*, T. Chen, W. Dai, Z. Wang, and Y. Tang

**ManiGaussian: Dynamic Gaussian Splatting for Multi-task Robotic Manipulation** Preprint 2024

G. Lu, S. Zhang, Z. Wang, C. Liu, J. Lu and Y. Tang

**ThinkBot: Embodied Instruction Following with Thought Chain Reasoning** Preprint 2023

G. Lu, Z. Wang, C. Liu, J. Lu and Y. Tang

**Semi-Supervised Subspace Clustering via Tensor Low-Rank Representation** TCSVT 2022

Y. Jia, G. Lu, H. Liu and J. Hou

**Learning Low Complexity Robust Transceiver for Massive MIMO Downlink with Enhanced Mobility** PIMRC 2022

G. Lu, Y. Li, H. Zhou, Y. Wang, W. Wang

**Outage Constrained Transceiver Power Loading: A Deep Learning Approach to Robust Massive MIMO Downlink**

BlackSeaCom 2022

Y. Li, G. Lu, H. Zhou, Y. Wang, W. Wang

## SKILLSET

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**Language & Tools:** Python/Pytorch, MATLAB, C/C++, Verilog, Git/Github, Linux.

**Machine Learning:** Deep Reinforcement Learning, Imitation Learning, Large Language Model, Generative Models (Diffusion, GAN), 3D Representation (NeRF, Gaussian Splatting), Low-rank Representation, Clustering.

## ACADEMIC SERVICE

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**Reviewer:** NeurIPS, ICCV, TCSVT Jun. 2023 - Present

**Teaching Assistant:** 2024 Spring Reinforcement Learning Mar. 2024 - Jun. 2024

## HONOR

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International Second Class Prize, ASC22 Student Supercomputer Challenge May 2022

National First Prize, The 13th National Undergraduate Mathematics Competition Dec. 2021

Association of Anhui People's Enterprises Scholarship Sep. 2021