

# Ai, Bo

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Address: 800 Dong Chuan RD. Min Hang District, Shanghai, China

## EDUCATION:

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### Shanghai Jiao Tong University

*Sep 2019-Mar 2023*

Master of Sci in Electronic and Electrical Engineering

GPA: 3.8/4.0

### Shanghai Jiao Tong University

*Sep 2012-Jun 2019*

Bachelor of Sci in Electronic and Electrical Engineering

GPA: 3.0/4.3

Officer of Gym Department in Student Union, Volunteer in Shanghai Marathon

## RESEARCH EXPERIENCE:

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### Automatic container loading system based RL

*Mar 2021-Dec 2022*

- A deep reinforcement learning method for 3D-BPP based POMDP
- Combination with auxiliary task, Monte Carlo tree search and self-attention
- 83.8% space utilization

### Structural health monitoring for rail fasteners

*Mar 2022-May 2022*

- A deep learning method for time series feature extraction and classification
- 97.4% accuracy on fault identification in real world

### Snakes AI

*Sep 2020-Oct 2020*

- Training AI in the  $10 \times 10$  grid with PPO
- 100% space filling rate

### Atari games AI

*Apr 2020-July 2020*

- Learning policy for several Atari games through images with PPO
- Better performance than human in Breakout

### Robotic arm obstacle avoidance algorithm based RL

*Oct 2019-Dec 2019*

- Learning policy with the information of robotic arm end effector
- Fast and smooth trajectory control strategy

## Publications:

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- Ai Bo, Junguo Lu, Chunyu Zhao, Deep reinforcement learning in POMDPs for 3-D palletization problem, 2022 China Automation Congress, China, Nov 2022
  - Pingxin Liu, Ai Bo, Zengyi Tang, Vibration based detection of rail foot fasteners based on the deep learning method, 28<sup>th</sup> International Congress on Sound and Vibration, Singapore, July 2022
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