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| **Xi Lin** | Email: [xilin03@outlook.com](mailto:xilin03@outlook.com) | | | | | | |
| Tel.: +86-18009692456 | | | | | | |
| Web: <https://xilin03.github.io/> | | | | | | |
| **EDUCATION** | | | | | | | |
| **Johns Hopkins University** | | Aug. 2025–Jun. 2027 | | | | | |
| ♦ Program: M.S.E. in Robotics | |  | | | | | |
| **Dalian University of Technology** | | Sep. 2021–Jun. 2025 | | | | | |
| ♦ Major: Mechanical Engineering (Joint Program with UC, Irvine) | Minor: Automation | | | |  | | | |
| ♦ Main Course: Automatic Control (88), Robot Dynamics (93), Robotics Perception (94) | GPA: 86.7/100 | | | | | | | |
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| **Publication** | | | | | | | |
| **Essay** | | | | | | | |
| 1. **Xi Lin,** Yuge Chen, Donglai Liu**,** Research on Object Detection of Robotic based on Convolutional Neural Network, accepted by the 2023 3rd International Conference on Image Processing and Intelligent Control. | | | | | | | |
| **Patents** | | | | | | | |
| 1. 1st Author: A new conveyor based on spiral closed anti-blocking | A type of grinding device | | | | | | | |
| 1. 2nd Author: A robotic arm | An automatic cutting robot | | | | | | | |
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| **INTERNSHIP** | | | | | | | |
| **Tsinghua University | Embodied AI Research Intern** | | | | | | Jan. 2025–Aug. 2025 | |
| *Project: Autonomous Navigation System for Humanoid Robots in Complex Terrains Based on VLA* | | | | | | | *With Prof. Xingyu Liu* |
| ♦ **Terrain System:** Developed a procedural terrain generation module to enable curriculum learning for robots | | | | | | | |
| ♦ **Hierarchical Control Framework:** Integrated 3D visual-semantic understanding with multimodal perception (SLAM) to dynamically switch terrain-adaptive locomotion policies. | | | | | | | |
| ♦ **VLA-SLAM Integration:** Implemented language-guided navigation and semantic obstacle avoidance by VLA with SLAM. | | | | | | | |
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| **Johns Hopkins University | Research Intern** | | | Jul. 2024–Dec. 2024 | | | | |
| *Project: The Modeling and Experiments of Obstacle Traversal of Legged Robots* | | | | *With Prof. Chen Li* | | | |
| ♦ **LSTM motion modeling:** Build a time series prediction model with a Spearman correlation coefficient of 0.87 (p<0.01) | | | | | | | |
| ♦ **Data generation system:** Design a random training data generation pipeline based on GMM and expand the size by300%. | | | | | | | |
| ♦ **Motion constraint modeling:** Establish a non-complete constraint equation to verify the nonlinear relationship between angular velocity and posture error | | | | | | | |
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| **RESEARCH** | | | | | | | |
| **Research on Object Detection of Robotic based on Convolutional Neural Networks** | | | | | | Oct. 2022–Jun. 2023 | |
| *Dalian University of Technology | 1 EI Essay* | | | | | *With Prof. Yan Zhuang* | | |
| ♦ **Algorithm Optimization:** Adjusted anchor boxes, implemented multi-scale training, and added adaptive convolution layers to improve detection on VOC2012 dataset. | | | | | | | |
| ♦ **Task Integration**: Contributed to integrating YOLOv5 with VINS-FUSION for real-time UAV navigation and object detection, laying the foundation for future work. | | | | | | | |
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| **ADDITIONAL INFORMATION** | | | | | | | |
| **Programming Languages**: Python (PyTorch / OpenCV), C++ (ROS) | | | | | | | |
| **Computer Skills:** Isaac Gym(RL Training), MATLAB(Simulation), SolidWorks(Patents), AutoCAD | | | | | | | |
| **Hobbies**: Guitar, Drum Set, Football, Badminton | | | | | | | |