Jingxi Chen

Personal website: https://codingrex.github.io/ Email: ianchen@terpmail.umd.edu

EDUCATION

University of Maryland, College Park, MD, USA
M.S. in Computer Science GPA: 3.94/4.0 Advisor: Pratap Tokekar
Expected: May 2022

B.S. in Computer Science GPA: 3.92/4.0 Aug. 2017 - May 2020

HONORS

1) John D. Gannon Endowed Scholarship
2) Capital One Bank Dean's Scholarship Fund in Computer Science

TECHNICAL SKILLS

Programming Languages: Python, Java, C, C++, MATLAB, Ruby
Library/Software: ROS, PyTorch, OpenCV, Matplotlib, Docker, GIT, LaTeX
Skills: Mobile Robotics, Machine Learning (Reinforcement Learning, Deep Learning for Computer Vision)

RESEARCH PUBLICATIONS

Multi-Agent Reinforcement Learning for Visibility-based Persistent Monitoring
2021 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
Jingxi Chen, Amrish Baskaran, Zhongshun Zhang, and Pratap Tokekar

- Paper: https://arxiv.org/abs/2011.01129
- Video demo: https://youtu.be/KpRwpBaBrGQ

WORKING EXPERIENCE

Robotics Software Engineer Jun. 2021 - Aug. 2021
Brain Corp, San Diego, CA
Working in the projects for real-world robotic applications, for robots deployed in Walmart and Sam's Club.

- Working in the Shelf-Scanning team on mobile-robot information sensing tasks for real-world retail store environments
- Debugging and testing the Navigation Stack of mobile robots (Perception, SLAM, Motion Planning)

Teaching Assistant Aug. 2018 - Sep. 2021
University of Maryland, Department of Computer Science
The responsibilities include holding office hours and developing course projects, homework, exams.

- CMSC421: Introduction to Artificial Intelligence Spring 2021
- CMSC420: Advanced Data Structures Spring/Fall 2020
- CMSC250: Discrete Structures Fall 2018/19
- CMSC132: Object-Oriented Programming II Spring 2019

Graduate Research Assistant May 2020 - Present
University of Maryland. Advisor: Pratap Tokekar

SELECTED PROJECTS

* Please see the projects page on my personal website for a complete list and more details: https://codingrex.github.io/projects/

Long-term Autonomy of Mobile Robots:
An ongoing research project on exploring and solving research problems involved in the long-term autonomy for mobile robots in environments that are not designed to be robot-friendly.

- Github page: https://github.com/codingrex/Long-Term-Autonomy

Policy Gradient Methods for MARL with General Utilities:
An ongoing research project on Multi-agent Reinforcement Learning (MARL) funded by U.S. Army Research Laboratory (ARL)

Occupancy Map Inpainting/Prediction for Ground Robot Navigation:
A class project of CMSC828I: Advanced Techniques in Visual Learning & Recognition at UMD. Using Deep Learning techniques for Object Detection and Image Segmentation to inpaint the occupancy gridmap for a better navigation performance in cluttered environments.