Changling Li

lichan@student.ethz.ch | https://changlingli.com | (+41) 079-613-4902
Peter-Debye-Weg 13.212, Zurich, Switzerland, 8049

EDUCATION BACKGROUND

ETH Zurich 09/2022 – Present
Master of Science in Computer Science, MSc

Colby College 09/2018 – 05/2022
Bachelor of Arts, Physics and Computer Science with Honors
- Overall GPA: **3.99**/4
- Awards and Honors:
  Distinction in both majors; Magna Cum Laude; Phi Beta Kappa; Sigma Pi Sigma; UWC Davis Scholar; Dean's List F'18, S'19, F'19, F'21 (2020 and S'21 - canceled due to COVID-19)

PUBLICATIONS & POSTERS

1. **C. Li**, Y. Li, "Multi-Agent Reinforcement Learning for Mission-Oriented Drone Networks: Individual Reward vs Shared Reward," (Under Review).
2. **Changling Li**, Zhang-Wei Hong, Pulkit Agrawal, Divyansh Garg, and Joni Pajarinen. "ROER: Regularized Optimal Experience Replay." Reinforcement Learning Journal, vol. 1, no. 1, 2024, pp. TBD.
3. Li, Y., **Li, C.**, Chen, J., & Roinou, C. (2022, July). Energy-Aware Multi-Agent Reinforcement Learning for Collaborative Execution in Mission-Oriented Drone Networks. In 2022 International Conference on Computer Communications and Networks (ICCCN) (pp. 1-9). IEEE

RESEARCH EXPERIENCES

Automating Robot Morphology Design
Supervisor: Zhang-Wei Hong & Prof. Joni Pajarinen, Massachusetts Institute of Technology 08/2024 – Present
- Implemented overall generation and evaluation workflow.

Reweighting Experience in Deep Reinforcement Learning
Supervisor: Zhang-Wei Hong, Massachusetts Institute of Technology 08/2023 – 04/2024
- Derived theoretical formulation of the new prioritized scheme.
- Conducted large scale evaluation for empirical proof.
- Conference paper was accepted by RLC and presented in August 2024.

Multi-Agent Reinforcement Learning for Collaborative Task Execution in Mission-Oriented Drone Networks
Supervisor: Prof. Ying Li, Colby College 01/2021 – 02/2022
- Created a scalable simulation environment for drone networks.
- Created DQN network with both shared reward and individual reward for study of credit assignment.
- Presented academic poster at 2021 Colby College Undergraduate Research Retreat.
- Conference paper was accepted by ICCCN and presented in July 2022.

Incorporate AI in Art Creation: Random Drawing Generation with Recurrent Neural Network
Supervisor: Prof. Hannen Wolfe, Colby College 01/2020 – 05/2021
- Created core workflow for data processing and visualization to investigate the correlation between eye focusing and drawing.
- Modified LSTM neural network and implemented poly-simplification algorithm to improve training efficiency.
- This project will be employed as a teaching tool in Colby College Art Department.

TEACHING EXPERIENCES

Department of Computer Science, Colby College 09/2019 – 05/2022
Teaching Assistant
- Courses include: CS 353 Interactive System; CS 251 Data Analysis and Visualization; CS 231 Data Structure and Algorithm; CS 152 Computational Thinking: Science; CS 151 Computational Thinking: Visual Media.

Department of Physics and Astronomy, Colby College 09/2019 – 05/2021
Teaching Assistant
- Courses include: PH 241 Modern Physics I; PH 242 Modern Physics II.

SERVICES

- 3D Printer Instructor for WatervilleCreates! 09/2021 – 05/2022
- Co-leader and Logistician for The Bridge (LGBTQIA+) Club of Colby College 02/2019 – 09/2021
- Co-leader and Data Analyst for Coral Monitoring of Li Po Chun UWC 09/2016 – 06/2018