Po-han Li

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EDUCATION

University of Texas at Austin   Aug. 2021 – Present
Ph.D. Candidate in Electrical and Computer Engineering   *Texas, U.S.A.*

- Research Interest: feature extraction of multi-view/multi-modal data, multi-view/multi-modal data compression, and information sharing in multi-agent networks (see more details on my [Personal Website](#))
- Co-advised by Prof. [Sandeep Chinchali](#) and Prof. [Ufuk Topcu](#)
- GPA: 3.93/4.00

National Taiwan University   Sep. 2016 – Jul. 2020
B.S. in Electrical Engineering   *Taipei, Taiwan*

- GPA: overall: 4.26/4.30 (3.99/4.0), last 60: 4.29/4.30. Ranking: 4/177
- Honors: Dean's List (2016 Fall, 2017 Spring, and 2018 Fall)
- College Student Research Scholarship from the Ministry of Science and Technology (2017-2019)

WORK EXPERIENCE

Graduate Research Assistant   Aug. 2021 – Present
Swarm Lab and UT Autonomous Systems Group   *Texas, U.S.A*
Python, LaTeX

- Published papers on the intersection of multi-agent networks, machine learning, and optimization, especially in multi-agent networks where agents possess diverse data views or modalities

Research Fellow   Aug. 2020 – Jul. 2021
Center for IoT Innovation at National Taiwan University of Science and Technology   *Taipei, Taiwan*
Python, Tableau, Netlogo

- Built a simulation platform for **automated guided vehicles (AGV)** in large-scale logistics warehousing centers
- Optimized AGV routing policy to achieve a **20% throughput improvement** of inventory picking

Machine Learning and Data Scientist Intern   Oct. 2019 – Mar. 2021
China Network Systems Co., Ltd.   *Taipei, Taiwan*
Python, Pytorch, Pandas, SQL, Tableau, Shell script

- Analyzed data pattern and build prediction models for **churn rate (unsubscribe) prediction**
- Used Raspberry Pi distributed in the core net and network terminals to collect network-quality data
- Created databases and interactive reports to monitor **over 1M set-top boxes** in real-time

Research Assistant   Aug. 2019 – Jun. 2020
Prof. Wanjiun Liao's Internet Research Lab, National Taiwan University   *Taipei, Taiwan*
Python, Pytorch

- Participated in *5G mobile edge computing technology research and platform construction* project supported by the Ministry Of Science And Technology
- Enhanced the quality of service (QoS) of multi-view 3D videos by **reinforcement learning**

SELECTED PUBLICATIONS

For a complete list of my publications, please check my [Google Scholar](#).

1. **P. Li**, O. S. Toprak, A. Narayanan, U. Topcu, and S. Chinchali. Online foundation model selection in robotics. *Under review*, 2024 **[link](#)**

2. **P. Li**, S.K. Ankireddy, R. Zhao, H. N. Mahjoub, E. Moradi-Pari, U. Topcu, S. Chinchali, and H. Kim. Task-aware distributed source coding under dynamic bandwidth. *Advances in Neural Information Processing Systems (**NeurIPS**)*, 2023 **[link](#)**

3. **P. Li**, S. Chinchali, and U. Topcu. Differentially private timeseries forecasts for networked control. *American Control Conference (**ACC**)*, 2023 [link](#)

4. **P. Li**, U. Topcu, and S. Chinchali. Adversarial examples for model-based control: A sensitivity analysis. *(**Allerton**)*, 2022 [link](#)

5. O. Akcin, **P Li**, S. Agarwal, and S. Chinchali. Decentralized data collection for robotic fleet learning: A game-theoretic approach. In *Conference on Robot Learning (**CoRL**)*, 2022 [link](#)

6. Y. Geng, D. Zhang, **P. Li**, O. Akcin, A. Tang, and S. Chinchali. Decentralized sharing and valuation of fleet robotic data. In *Conference on Robot Learning (**CoRL**)*, 2021 [link](#)

TECHNICAL SKILLS

Programming Languages: Python, C++, SQL, Shell Script, Julia
Libraries&Toolkits: PyTorch, Huggingface, Gymnasium, Stable-Baselines3, Keras, CVXPY, Git, LaTeX
Data Visualization Tools: Tableau, Power BI

TEACHING EXPERIENCE

ECE 381V Learning-based Optimal Control: Teaching assistant   Aug. 2023 – Dec. 2023

EXTRACURRICULAR ACTIVITIES

UT Girl Day
Volunteer   Feb. 2023 and Feb. 2024
- Instructed guests of all ages on how to operate an AutoAuto vehicle using basic Python commands. [link](#)

REACT REU
Mentor   Aug. 2023
- Instructed undergraduate students to improve real-time computer vision models, excelling in image classification and object detection using Python.

Code2College
Mentor   Jul. 2022 – Present
- Mentored underrepresented high school graduates to prepare for software engineering jobs or college interviews.

Student Council of National Taiwan University
Member of Parliament   Jan. 2019 – May. 2019
- Voiced concern about potential cyber security issues of the electrical voting system.

Student Association of Department of Electrical Engineering
Coordinator of Curriculum Reform   Sep. 2018 – Jun. 2019
- Collected student feedback on curriculum reform.

National Taiwan University Musical Club
Event Coordinator   Jan. 2016 – Jun. 2019
- Organized one original and one adapted musical production.