

Po-han Li

pohanli@utexas.edu | [Personal Website](#) | [LinkedIn](#) | [Google Scholar](#)

EDUCATION

The University of Texas at Austin

Aug. 2021 – Present

MS/Ph.D. in Electrical and Computer Engineering

Texas, U.S.A.

- Research Interest: Applications of large model inference, differential privacy, and data compression in networks using game theory, optimization, and neural 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 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

- Foundation model selection and uncertainty estimation.
- Task-aware data transmission in heterogeneous networks.
- Decentralized data sharing in fleet robotic data.

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

3. **P. Li**, U. Topcu, and S. Chinchali. Adversarial examples for model-based control: A sensitivity analysis. *58th Annual Allerton Conference on Communication, Control, and Computing*, 2022 [link](#)
4. 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*, 2022 [link](#)

TECHNICAL SKILLS

Programming Languages: Python, C++, SQL, Shell Script, Julia

Libraries&Toolkits: PyTorch, Gymnasium, Stable-Baselines3, Keras, CVXPY, Git, L^AT_EX

Data Visualization Tools: Tableau, Power BI

TEACHING EXPERIENCE

ECE 381V Learning-based Optimal Control: Teaching assistant

Aug. 2023 – Dec. 2023

EXTRACURRICULAR ACTIVITIES

Student Council of National Taiwan University

Member of Parliament

Jan. 2019 – May. 2019

- Voiced concern about potential cyber security issue of the electrical voting system.

Student Association of Department of Electrical Engineering

Coordinator of Curriculum Reform

Sep. 2018 – Jun. 2019

- Collected student feed back on curriculum reform.

National Taiwan University Musical Club

Event Coordinator

Jan. 2016 – Jun. 2019

- Organized one original and one adapted musical production.