CHANGHAO SHI

Address: 9450 Gilman Drive #80348, La Jolla, CA 92092, U.S.
Email: cshi@ucsd.edu • Website: https://www.changhaoshi.com

EDUCATION:

University of California San Diego — La Jolla, CA

Ph.D. in Electrical and Computer Engineering (3.95/4.00) — 09/2018-Present

- Research focus: statistical learning, graph signal processing, deep generative models, computer vision
- Thesis title: Generalizing Graph Laplacian Learning - from a Graph Signal Processing Perspective

Beihang University — Beijing, China

B.S. in Biomedical Engineering (3.81/4.00) — 09/2014-06/2018

- Awards: Beihang Academic Excellence Scholarship, Beihang Competition Excellence Scholarship, the First Prize of Chinese National College Mathematics Competition

PUBLICATIONS:

[1] **C. Shi**, C. Holtz and G. Mishne, "Online adversarial purification based on self-supervised learning," in ICLR, 2020.

[2] **C. Shi**, S. Schwartz, S. Levy, S. Achvat, M. Abboud, A. Ghanayim, J. Schiller and G. Mishne, "Learning Disentangled Behavior Embeddings," in NeurIPS (spotlight), 2021.

[3] H. Ni, **C. Shi**, K. Li, S. X. Huang and M. R. Min, "Conditional Image-to-Video Generation with Latent Flow Diffusion Models," in CVPR, 2023.

[4] **C. Shi**, H. Ni, K. Li, S. Han, M. Liang and M. R. Min, "Exploring Compositional Visual Generation with Latent Classifier Guidance," in CVPR Workshop, 2023.

[5] **C. Shi** and G. Mishne, "Cartesian Product Graph Learning with Laplacian Constraints," in AISTATS, 2024.

[6] **C. Shi** and G. Mishne, "Graph Laplacian Learning with Exponential Family Noise," in IEEE journal submission, 2023.

INTERNSHIPS:

Qualcomm Technologies, Inc. — Bridgewater, NJ

Machine Learning Engineer Intern — Summer 2024

- Boost transformer-based online lane detection with standard definition maps for autonomous driving.

NEC Laboratories America, Inc. — Princeton, NJ

Machine Learning Research Intern — Summer 2022

- Use conditional diffusion models for controllable image and video generation.

TEACHING:

- Teaching Assistant, ECE 15: Engineering Computation — UCSD 2020
- Teaching Assistant, ECE 209: Statistical Learning for Bio-signal Processing — UCSD 2020
- Teaching Assistant, ECE 271a: Statistical Learning — UCSD 2019

SKILLS:

- Programming: Python, PyTorch, Matlab, C++, SQL
- Courses: Probability & Statistics, Machine Learning, Deep Learning & Neural Networks, Data Science