YAN-HAN CHEN

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EDUCATION

Iowa State University   Ames, Iowa
Ph.D., Statistics, jointly advised by Arka Ghosh, Ruoyu Wu and Hailiang Liu   *2020-2026(Expected)*

National Chiao Tung University   Hinschu, Taiwan
M.S., Statistics   *2014-2016*

National Chiao Tung University   Hinschu, Taiwan
B.S., Applied Mathematics   *2010-2014*

PUBLICATIONS & PREPRINTS

Neural Solver for Wasserstein Geodesics and Optimal Transport Dynamics. With Hailiang Liu. Submitted to *SIAM Journal on Scientific Computing*

Limit Theorems for Heterogeneous Graphon JSQ(d) Model. With Arka Ghosh and Ruoyu Wu. Near completion (draft available upon request)

Estimating Logging Thresholds for the World's Disturbed Forests using Mixed Rarefaction Extrapolation Framework. With Simon Thorn, Anne Chao et al. *Nature communications* (2020)

Rare Species, Functional Groups, and Evolutionary Lineages Drive Successional Trajectories in Disturbed Forests. With Simon Thorn, Anne Chao et al. *Ecology* (2020)

Salvage Logging Changes the Taxonomic, Phylogenetic and Functional Successional Trajectories of Forest Bird Communities. With Kostadin Georgiev, Anne Chao et al. *Journal of Applied Ecology* (2020)

PRESENTATIONS

Neural Solver for Wasserstein Geodesics and Optimal Transport Dynamics

- SIAM Central States Section Annual Meeting (Oct 2025), Fayetteville, AR — Contributed Talk (Travel Award Recipient)

- Great Lakes Section of SIAM (Sep 2025), Chicago, IL — Mini-session Talk

Limit Theorems for Heterogeneous Graphon JSQ(d) Model

- INFORMS Annual Meeting (Oct 2024), Seattle, WA — Invited Talk

- Analysis and Probability Seminar (Oct 2024), Iowa State University — Seminar Talk

RESEARCH EXPERIENCE

Student Contractor, Corteva Agriscience   Aug 2022 – Aug 2025

- Supervised by Dr. Carl Walker.

- Designed adaptive experiments using Bayesian optimization with Gaussian process regression.

- Applied reinforcement learning to control water valves in a two-tank system.

Research Assistant, National Tsing Hua University, Hsinchu, Taiwan   Aug 2017 – Jun 2020

- Supervised by Dr. Anne Chao.

- Worked on statistical ecology with nonparametric models, including diversity estimation, diversity decomposition/dissimilarity, and extensions to hierarchical structures.

Teaching & Outreach

Instructor, Department of Statistics, Iowa State University

- STAT 5280: Visual Business Analytics (Fall 2025)

- STAT 226: Introduction to Business Statistics I (Spring 2022)

Lab Assistant / Grader, Department of Statistics, Iowa State University

- STAT 326: Introduction to Business Statistics II (Spring 2022)

- STAT 330: Probability and Statistics for Computer Science (Summer 2022)

- STAT 305: Engineering Statistics (Summer 2021)

Volunteer Tutor, CyMath, Iowa State University   Jan 2024 – Dec 2024

- Volunteer tutor in ISU CyMath, a math tutoring program for students in grades 3–12.

Substitute Military Service (Education Service), Taiwan   Aug 2016 – Jul 2017

- Tutored and mentored underprivileged junior high school students in mathematics.

Awards & Honors

Travel Award	October 2025
SIAM Central States Section Annual Meeting	*Fayetteville, AR*
Government Fellowship for Studying Abroad	2020 — 2023
Ministry of Education, Taiwan	

- Full fellowship covering tuition and living expenses for the first three years of Ph.D. study (total support up to $150,000 USD).

Funded Summer School Student	July 2014
Institute of Mathematics, Academia Sinica	*Taipei, Taiwan*

- Selected participant with financial support for the Summer School on Mathematical Finance

Funded Summer School Student	July 2013
Mathematics Divison, National Center for Theoretical Sciences	*Hsinchu, Taiwan*

- Selected participant with financial support for the Summer School on Probability

Technical Skills

Programming Languages: R (with Rcpp), Python, SQL,C++
Machine Learning Frameworks: PyTorch, BoTorch, Scikit-Learn, Numpy, Pandas
Data Manipulation and Visualization: dplyr, tidyr, ggplot2, seaborn, plotly
Version Control: git