

Chun-Yi Chang

East Lansing, MI | chang103@msu.edu | +1 (517)974-5638 | LinkedIn | Personal Website

Education

Michigan State University, Ph.D. in Statistics, **GPA: 3.9/4.0** Sep 2022 - Aug 2027

- Advisor: Dr. Chih-Li Sung
- **Coursework:** Statistical Learning and Data Mining, Bayesian Inference

Michigan State University, M.S. in Applied Statistics, **GPA: 3.9/4.0** Sep 2020 - May 2022

National Taipei University, B.B.A in Statistics, **GPA: 3.4/4.0** Sep 2016 - Jun 2020

Research & Skills

Research Interests: Uncertainty Quantification, Bayesian Optimization, Surrogate Modeling

Programming and Tools: R, Python, MySQL, SAS, MATLAB

Statistical Modeling: Regression, Mixed Models, Clustering, Classification, Gaussian Processes

Bayesian Methods: Variational Inference, Gibbs Sampling, MCMC, Bayesian Gaussian Mixture Models

Publication

Chang, C.-Y. and Sung, C.-L. (2026). Deep Intrinsic Coregionalization Multi-Output Gaussian Process Surrogate with Active Learning. *International Journal for Uncertainty Quantification*, accepted.

Experience

Research Assistant, Michigan State University | East Lansing, MI May 2021 - Present

- Designed a two-layer deep Gaussian process with mini-batch latent MAP estimation for scalable inference.
- Developed a Multi-Output Deep Gaussian Process (MODGP) model with a coregionalization structure, achieving top-three predictive performance among nine benchmark emulators.
- Designed active learning and sequential experimental designs for multi-output GP models, reducing predictive uncertainty and improving modeling efficiency.

Teaching Assistant, Michigan State University | East Lansing, MI Sep. 2021 - Present

- Mentored over 500 students across introductory and advanced statistics courses, contributing to a 15% improvement in final exam performance through interactive and hands-on learning.

Data Analyst Intern, Consilium Software Inc (PTE.) Ltd | Taipei, Taiwan Jul. 2019 - Aug. 2019

- Collaborated on developing a telemarketing analysis system in R, identifying key correlations between product attributes and sales outcomes.
- Built a text-to-speech model, reducing processing time by 90% and improving customer needs analysis.

Honors & Awards

NISS New Researcher Award (2026)

- Presented an invited talk on *Efficient Deep Gaussian Process Surrogates via Mini-Batch Latent MAP Estimation*.

Dissertation Completion Fellowship (2026)

- Awarded by the College of Natural Science at Michigan State University in support of dissertation completion.

ASA/IMS Spring Research Conference Student Travel Award (2025)

- Delivered a research talk on *Deep Intrinsic Coregionalization Multi-Output Gaussian Process*.

IMSI Poster Acceptance (2025)

- Presented poster at the *Kernel Methods in Uncertainty Quantification and Experimental Design* program.

Harkness Outstanding Graduate Student Teaching Award (2023-2024)

- Selected from 30+ graduate TAs for exceptional contributions to statistics teaching.