Spencer Young

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My research interests lie at the intersection of probabilistic deep learning, uncertainty quantification, and optimal decision-making. I aim to build safe, intelligent systems that not only accelerate human progress, but do so with an honest and principled representation of their uncertainty. My work blends theoretical rigor with real-world deployment and has led to multiple peer-reviewed publications, as well as several impactful products in the retail intelligence space.

Education

B.S. in Applied and Computational Mathematics, Brigham Young University (4.0/4.0) 2017 – 2023

Experience

Delicious AI, Lehi, UT — Machine Learning Scientist 2023 – Present
BYU METAL Labs, Provo, UT — Undergraduate Researcher 2022 – 2023
Qualtrics, Provo, UT — Research Intern, Text iQ June 2022 – August 2022
Pacific Northwest National Laboratory, Seattle, WA (*Remote*) — Research Intern June 2021 – August 2021

Honors & Awards

Valedictorian, College of Physical and Mathematical Sciences (BYU) 2023
Thomas S. Monson Presidential Scholarship, Brigham Young University 2017 – 2023
5x Dean's List, Brigham Young University 2017 – 2023
4x Society of American Military Engineers Scholarship, Seattle Post 2017 – 2023
National Merit Scholar 2017

Publications

2025

1. *Fully Heteroscedastic Count Regression with Deep Double Poisson Networks*
   Spencer Young, Porter Jenkins, Longchao Da, Jeffrey Dotson, and Hua Wei
   42nd International Conference on Machine Learning (ICML) 2025

2024

2. *Beyond Calibration: Assessing the Probabilistic Fit of Neural Regressors via Conditional Congruence*
   Spencer Young, Cole Edgren, Riley Sinema, Andrew Hall, Nathan Dong, and Porter Jenkins
   28th European Conference on Artifical Intelligence (ECAI) [In Submission] 2024

3. *A General Method for Measuring Calibration of Probabilistic Neural Regressors*
   Spencer Young and Porter Jenkins
   3rd Workshop on Uncertainty Reasoning and Quantification in Decision Making (KDD) 2024

Repositories

delicious-ai/ddpn — *Training/evaluation code for various probabilistic neural regressors* 2025
spencermyoung513/probcal — *Kernel-based conditional assessment of probabilistic models* 2024
delicious-ai/HungarianAlgorithm — *Optimized implementation of the Hungarian Algorithm in Swift* 2023

Invited Talks

2025

1. Starting a Career in ML Research – Brigham Young University (MATH 495R) (slides)

2024

2. Vector Databases in the Wild – Brigham Young University (CS 452) (slides)

2023

3. Deep Metric Learning – Brigham Young University (CS 180) (slides)

Professional Activities

Alumni Board Member, BYU Applied and Computational Mathematics 2023 – Present
President, Student Advisory Council, BYU Applied and Computational Mathematics 2021 – 2022

Extracurriculars

Aspen Chorale 2023 – Present
BYU Student Voice 2020 – 2021
BYU Men's Chorus 2017, 2020
Full-time Missionary, Church of Jesus Christ of Latter-day Saints 2017 – 2019
Math / Coding Tutor 2017 – Present