
Postdoctoral Research Fellow: June 2023-present

Memorial Sloan Kettering Cancer Center
Supervisor: Ronglai Shen, Ph.D

Academic Achievements

Biopharmaceutical Section Award
NSF/Harshbarger Student Travel Award***
Dean's Award**
Poster Competition Award (2020* and 2021*)
Summer Institute Scholarship
Statistical Science Department Award

American Statistical Association
Southern Regional Council of Statistics
SMU Moody School of Graduate Studies
Conference of Texas Statisticians
University of Washington Biostatistics
Southern Methodist University

Ph.D: 2019-2023

Supervisors: Steve Jiang, Ph.D & Daniel F. Heitjan, Ph.D

Biostatistics

Southern Methodist University
UT Southwestern Medical AI & Automation lab

B.S., B. Mus.: 2015-2019

Minor: Mathematics

Statistical Science, Cello Performance

Southern Methodist University
First Class Honours - GPA: 3.9
Alpha Chi National College Honor Society

Skills

Theory: Mathematical Statistics, Complex Analysis, PDEs, Measure Theory, Topology,
Methods of Theoretical Physics

Application: R, PYTHON, BASH, Reinforcement Learning, Monte Carlo, Tensorflow, PyTorch,
Bayesian Methods, Clinical Trials, Writing, Time Management

Research Bibliography

- [1] **MaryLena Bleile**, et al. **Towards the Optimal Combination of Radiotherapy and Immunotherapy Using Deep Reinforcement Learning^{*,**,***}**. *Medical Physics (online-only edition)*, 2022.
- [2] **MaryLena Bleile**. Optimizing tumor xenograft experiments using Bayesian linear and nonlinear mixed modelling and Reinforcement Learning. *Dissertation Archives at SMU Scholar*, 2023.
- [3] **MaryLena Bleile**, et al. Imputation of truncated tumor growth data via Bayesian mixed modelling. *Medical Physics (online-only edition)*, 2021.
- [4] David Hein, Weiye Deng, **MaryLena Bleile**, et. al. Racial and ethnic differences in genomic profiling of early-onset colorectal cancer. *Journal of the National Cancer Institute*, 114(5):775–778, 2022.
- [5] Adam Richie-Halford, ... , **The Fibr Optics Consortium**, et. al. An analysis-ready and quality controlled resource for pediatric brain white-matter research. *Scientific Data*, 9(1):1–27, 2022.
- [6] Binwei Deng, ... , **MaryLena Bleile**, et. al. Quality control tests of the front-end optical link components for the ATLAS liquid argon calorimeter phase-1 upgrade. *Journal of Instrumentation*, 16(08):P08006, 2021.
- [7] MaryLena Bleile. **Youden's J and the Bi Error Method^{*}**. In *Intelligent Computing*, pages 196–209. Springer, 2021.
- [8] **MaryLena Bleile**, Bianca Luedeker, and Brandon Patterson. A Bayesian analysis of heavy metal subgenre prevalence in Northern Europe and the West. *Journal of Metal Music Studies*, 08(03), 2022.

- [9] Michael Lively and **MaryLena Bleile**. Gesualdo's Moro Lasso and the Freudian repetition compulsion. *Gamut: Online Journal of the Music Theory Society of the Mid-Atlantic*, 9(1):4, 2020.
- [10] Organizers of QueerInAI: A. Pranav, **MaryLena Bleile**, Arjun Subramonian, et. al. How to make virtual conferences queer-friendly: A guide. In *Proceedings of the 2021 Workshop on Widening NLP*, Punta Cana, Dominican Republic, November 2021. Conference on Empirical Methods in Natural Language Processing.
- [11] **MaryLena Bleile** and Madeleine Jennings. Dichotomania: Not just a statistical problem. *oSTEM Annual Conference*, 2020. Presentation.
- [12] **MaryLena Bleile** and Zachary Wallmark. Effects of priming on musicians' perception of intervals. *Meeting of the Society of Music Perception and Cognition*, 2017. Presentation.

Speaking

Levin Lecture: "A Domain-Oriented Analysis Pipeline for Spatial Transcriptomics with application to Melanoma Data"

Columbia University (2023)

Invited Seminar: "Statistical and Machine Learning Methods for Adaptive Radiotherapy Treatment Plans"

Onc.AI (2022)

Memorial Sloan Kettering Cancer Center (2022)

Fireside Chat: "Leveraging AI for Health"

Women in AI seminar series

Press Interview: "Rise of the Machines?"

Dallas Voice

Graduate Student Panelist

Southern Regional Conference on Statistics

Contributed Talk

Onatsie: Symposium on Tolkeinian Linguistics

"Communication Efficiency of Quenya and English: A Quantitative Comparison"

Contributed Talk

SCV Data Science and Machine Learning Workgroup

"Gaussian Magic: Between the CLT and the Heisenberg Uncertainty Principle"

Queer in AI Representative Panelist

Captial One Diversity Summit

Invited Panelist

Association for Computing Machinery - AI division

Leadership and Professional Activity

Mentor for Undergraduate Students (2023)

SMU DataFest

Workshop Organizer (2021)

38th International Conference of Machine Learning

Invitational Peer Reviewer

Various academic journals including Cancer Medicine

Mentor for Undergraduate Students (2022)

Southern Regional Conference on Statistics

Secretary (2021-2022)

Mustang Martial Arts

Teaching Assistant: Introduction to Biostatistics (2022)

UT Southwestern Medical Center

Teaching Assistant: Music Theory I (2017)

Southern Methodist University

Biologically and Functionally Guided Radiotherapy

Medical Physics Continuing Education credit

Deep Learning Specialization

deeplearning.ai

Reinforcement Learning Specialization

UAlberta

Industry Experience

Statistical Consultant

UT Southwestern Center for Depression Research and Clinical Care

Supervisor: Cherise Chin Fatt, Ph.D

2019

Technology Intern

Zephyr Sleep Technologies

Supervisor: Sabina Bruehlmann, Ph.D

2018-2019

Freelance Musician

Selected Gigs & Awards:

Cello Performance

2012-2019

- Young Artist Fellowship: Alberta Foundation for the Arts
- Tour across Germany, venues including the Kleiner Golden Concert Hall
 - Principal Cellist
 - C.P.E. Bach Concerto Soloist
 - Glowing newspaper review in Jüterborg
- Invited Symphonic Solo with the Couer d’Alene Symphony
- Solo with the Calgary Youth Orchestra: Frank Simpson Concerto Competition Award Winner
- Epilepsy Awareness Recital (over 500 dollars raised for the Alberta Children’s Hospital)
- National Finalist in the Canada Music Competition
- Eileen Hooper Medal for Strings
- Provincial representative of Calgary in the Kiwanis Music Festival (3 consecutive years)

Non-Academic Writing

Article Contributor (2021)

Crossroads: The ACM Magazine for Students

1. Queer in AI

Guest Contributor (2021)

The LGBT Stem blog

1. On Dichotomania
2. An Interview with MaryLena Bleile

Extracurricular Accomplishments

Judo:

Gold Medal (Novice Women -48 kg)

2023 Westlake Judo Tournament

Gold Medal (Novice Women -48 kg)

2022 Annual President’s Cup Tournament

Gold Medal (Novice Women -48 kg)

2022 Dallas Open Judo Championships

Gold Medal (Novice Women -52 kg; uncontested in -48kg)

2022 NTX Summer Slam

Orange Belt (5th Kyu)

SMU Judo Club & Eastside Dojo

Promotion by Senseis Jim Riddle, Stephanie Davis & Dan Baik; August 2022