

MaryLena Bleile

Statistics, Machine Learning, & Music

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Academic Achievements

Ph.D: 2019-2023

Statistics

*Southern Methodist University
UT Southwestern Medical Artificial Intelligence & Automation lab
Div. Medical Physics & Engineering*

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

Statistical Science, Cello Performance

Minor: Mathematics

*Southern Methodist University
First Class Honours - GPA: 3.9*

Recent Recognition:

Mathematics and Statistics

Poster Competition Award: 2020 & 2021

Conference of Texas Statisticians

Press Interview: 2021

Dallas Voice: "Rise of the Machines?"

Varian Prostate Award: 2021

Ph.D Fellowship via UT Southwestern MAIA lab

Summer Institute Scholarship: 2020

University of Washington

Graduate Student Travel Award: 2020

Southern Methodist University

Statistical Science Department Award: 2019

Southern Methodist University

Past Recognition (Selected):

Music

Young Artist Fellowship:

Alberta Foundation for the Arts

Award winner:

Frank Simpson Concerto Competition

Award winner:

Couer d'Alene Concerto Competition

National Finalist:

Canada Music Competition

Scholarship Recipient, Provincial Representative, & Medalist:

Kiwanis Music Festival

Deep Learning Specialization: 2020

deeplearning.ai

Fundamentals of Reinforcement Learning: 2020

UAlberta

MCMC for Infectious Disease: 2020

Univ. Washington Biostatistics

Forensic Genetics: 2020

Univ. Washington Biostatistics

Skills

Theory: Complex Analysis, Partial Differential Equations, Measure Theory, Topology, Numerical Methods, Methods of Theoretical Physics

Application: R, PYTHON, L^AT_EX, SAS, BASH, C++, ARDUINO, HTML

Academic Writing, Time Management

Publications

- [1] 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.
- [2] MaryLena Bleile. Youden's J and the Bi Error Method. In *Intelligent Computing*, pages 196–209. Springer, 2021.
- [3] 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.

Professional Experience

Technology Intern Zephyr Sleep Technologies
2018-2019

Undergraduate Research Assistant SMU Department of Physics: *ATLAS* Project
2018

Cellist Contractor: recitals, tours (including France, Germany & Italy), teaching & events
2012-2018

Speaking

2021 Conference of Texas Statisticians

Towards the Optimal Combination of Radiotherapy and Immunotherapy Using Deep RL

American Association of Physicists in Medicine, 63rd Annual Meeting

Imputation of Truncated Tumor Growth Data Via Bayesian Mixed Modelling

Onatsie: Online Meeting of Tolkeinian Linguistic Scholars

Communication Efficiency in Quenya *vs* English: a Bayesian Comparison

ICML Queer in AI Workshop

(Co-presented with Arjun Subramonian)

How can I make my Conference More Inclusive? A Queer-Friendly Conference Guide

38th International Conference on Machine Learning

Perspectives on Mathematics, Language, and Music

UCLA ACM-AI/ACM-W

Queer in AI panel

SMU Research Days 2021

Bayesian Imputation of Truncated Tumor Volumes

2020 Conference of Texas Statisticians

Youden's J and the Bi Error Method

R-Ladies NYC Lightning Talks 2020

Melvin: a Deep Learning-based companion AI

Conference on Applied Statistics 2018

Play it again, HAL: A Perceptual Study of Computer-Made Music

(Accepted Presentation)

2018 Meeting of the College Music Society

Phrase Painting and Goal Orientation in Gesualdo's 'Moro, Lasso'

Leadership

Alpha Chi National Honor Society

Member

Queer in AI

Organizer (including ICML 2021 Queer in AI Workshop)

American Statistical Association

Student Member

American Association of Physicists in Medicine

Student Member

Society of Physics Students

SMU Chapter Member

SMU Mixed Martial Arts club

Officer

Journal of Metal Music Studies

Quantitative Peer Reviewer