



WOMEN IN DATA SCIENCE LIVERMORE

Welcome to our
6th annual
Livermore event
(and our 1st hybrid!)



WOMEN IN DATA SCIENCE



#WiDSatLLNL #WiDS2023

LLNL-PRES-845483



Download a virtual background



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Today's events at WiDS Livermore

Fireside chat

A conversation with **Dona Crawford**, Board Chair of the Livermore Lab Foundation

Moderated by **Nisha Mulakken**, Co-Director of LLNL's Data Science Summer Institute



Dona Crawford



Nisha Mulakken

Featured speakers

Amanda Randles, Assistant Professor at Duke University

Kelli Humbird, LLNL Design Physicist



Amanda Randles



Kelli Humbird

Datathon results

Speed mentoring



2023 organizers



Mary Silva



Emilia Grzesiak



Marisa Torres
WiDS ambassador



Nikki Finnestead



Christine Himes



Anna Jurgensen



Sira Neily



Jennifer Bellig



Holly Auten



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Morning address



Amanda Randles

Amanda Randles is the Alfred Winborne Mordecai and Victoria Stover Mordecai Assistant Professor of Biomedical Sciences and Biomedical Engineering at Duke University. She has courtesy appointments in the departments of Mechanical Engineering and Material Science, Computer Science and Mathematics, and is a member of the Duke Cancer Institute. Focusing on the intersection of high performance computing, machine learning, and personalized modeling, her group is developing new methods to aid in the diagnosis and treatment of a diseases ranges from cardiovascular disease to cancer. Amongst other recognitions, she has received the NIH Pioneer Award, the NSF CAREER Award, and the ACM Grace Hopper Award. She was named to the World Economic Forum Young Scientist List and the MIT Technology Review World's Top 35 Innovators under the Age of 35 list and is a Fellow of the National Academy of Inventors. Amanda received her PhD in Applied Physics from Harvard University as a DOE Computational Graduate Fellow and NSF Fellow. Before that, she received her Master's degree in Computer Science from Harvard University and her Bachelor's degree in Computer Science and Physics from Duke University. Prior to graduate school, she worked as a software engineer at IBM on the Blue Gene supercomputing team. She has contributed to over 80 peer-reviewed papers, over 100 granted US patents, and had over 100 pending patent applications.



Fireside chat



Dona Crawford

Dona L. Crawford is the former Associate Director of Computation at LLNL where she led the Laboratory's high performance computing efforts. Prior to her LLNL appointment in July 2001, Crawford was with Sandia National Laboratories since 1976, serving on many leadership projects, including the Accelerated Strategic Computing Initiative. She currently Chairs the Board of the Livermore Lab Foundation, a 501(c)(3), whose mission is to advance scientific research, technology development, and educational endeavors at LLNL through philanthropic contributions. Crawford has served on advisory committees for the National Research Council and the National Science Foundation. She co-chaired the Council on Competitiveness High Performance Computing Advisory Committee, and is a member of the Strategic Research Advisory Board at the University of Oklahoma, the DOE/NNSA's Defense Programs Advisory Subcommittee on High Performance Computing, and is a past chair of the U.S. Supercomputing Conference. She has a Master's degree in operations research from Stanford University and a Bachelor's degree in mathematics from the University of Redlands, California.



Nisha Mulakken

Nisha Mulakken's research lies at the confluence of biology, computer science, and statistics. Her work in LLNL's Bioinformatics Program includes designing tools for rapid detection of pathogens, including SARS-CoV-2, experimenting with machine learning algorithms for predicting protein function, and creating scalable infrastructure to support large metagenomics projects. She is currently the Group Leader for the Biosecurity and Data Science team in the Global Security Computing Applications Division. Mulakken is co-director of the Data Science Summer Institute (DSSI), a highly competitive internship program and valued hiring pipeline for LLNL. She currently serves as the LLNL liaison to the Livermore Lab Foundation, connecting talented students and dedicated mentors working on cutting edge science across many disciplines. A four-time LLNL summer intern and longtime employee, Mulakken holds degrees in genetics and biostatistics.



Speed mentoring

- ✓ **Virtual** participants will be placed into WebEx breakout rooms: **separate WebEx from the main WebEx**
- ✓ **Onsite** participants will rotate around conference room R1226
- ✓ Mentors stay where you are; mentees will rotate
- ✓ Prompts (or you can go “off script”!): **data-science.llnl.gov/wids**



Afternoon address



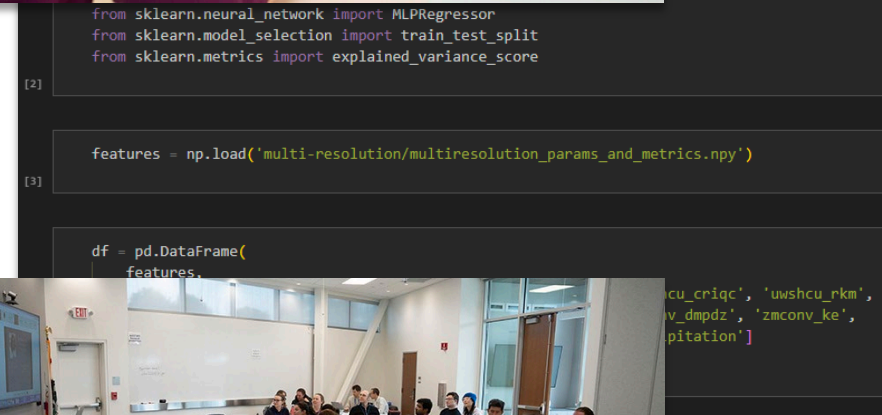
Kelli Humbird

Kelli Humbird is a Design Physicist at Lawrence Livermore National Laboratory. Most of her research is concentrated in inertial confinement fusion (ICF), and applications of machine learning to strengthen predictive modeling and optimize designs. In addition to ICF, she has spent time at LLNL working in stockpile certification and technical nuclear forensics. She is the principal investigator of a project to accelerate atomic physics calculations with neural networks, and briefly worked on ML analysis for the spread of COVID-19 during the first year of the pandemic. The common thread throughout much of this work is the application of machine learning to scientific problems with sparse data.



WiDS datathon

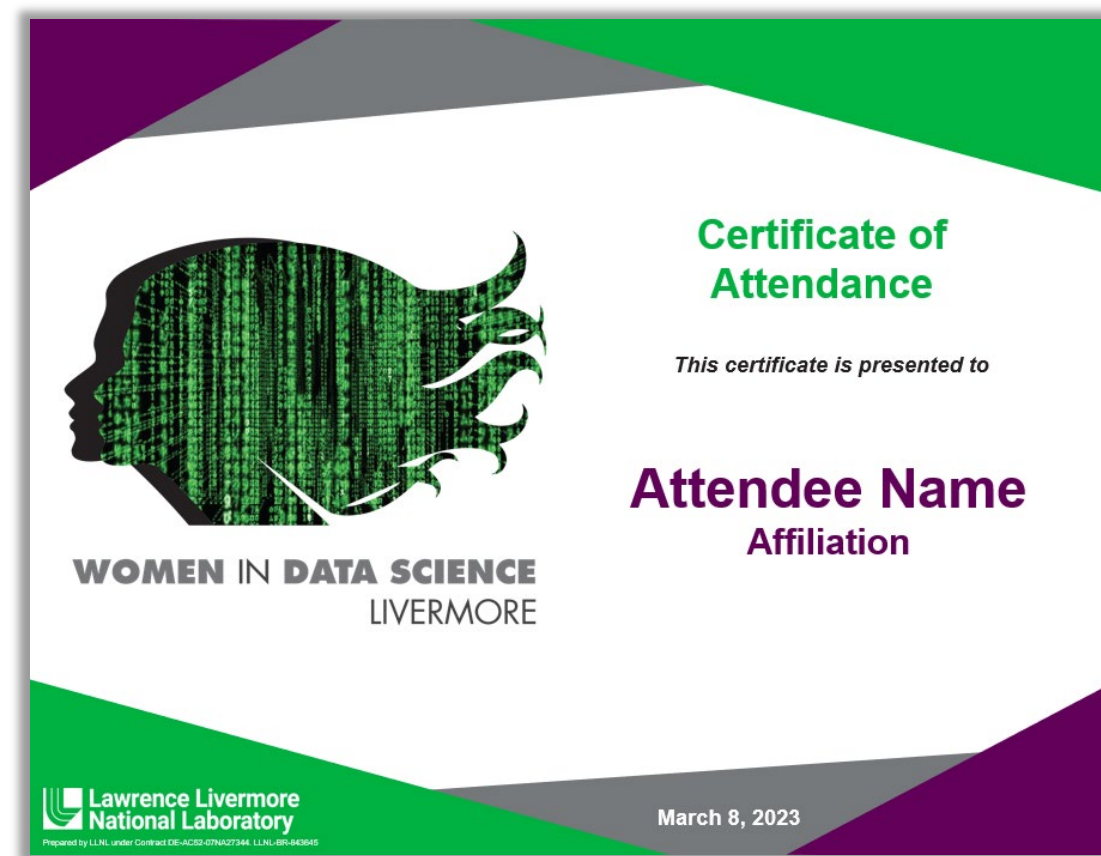
- ✓ In February, LLNL participated in the WiDS datathon competition
- ✓ The datathon focused on a climate dataset challenge
- ✓ Our speakers: UC Merced applied math professor Suzanne Sindi (video forthcoming), Climate LLC data scientist Kelsey Blackstone, LLNL climate physics researcher Gemma Anderson
- ✓ You can practice your skills with our Jupyter Notebook tutorial and view the Kaggle leaderboard
- ✓ Resources are posted on data-science.llnl.gov/wids



Attendance certificate

Email us to request yours!

DSI-Admin@llnl.gov



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Reception until 4:30pm

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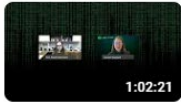


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We'll see you at WiDS 2024!



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