

Mikaela Meitz

Machine Learning Engineer

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619-922-7767

C++, Python, Matlab, Mathematica

Jupyter, Linux, MS Office, MS Power BI, PyTorch, NumPy, Pandas, Neural Networks, Machine Learning

Lawrence Berkeley National Laboratory - *Graduate Research Assistant* 2022 - 2023

- Research on Hamiltonian Neural Networks for electron particle tracking for particle accelerators
- Created and implemented various algorithms to analyze large datasets
- Implemented multiple machine learning models in Python on NERSC supercomputers.
- Created plots and analytical methods to interpret results obtained from machine learning models
- Reduced numerical particle tracking time by 97%

California State University, Long Beach - *Teaching Associate/Graduate Assistant* 2021 - 2023

- Instructed Calculus for Business
- Utilized effective communication while engaging with a diverse campus community fostering an inclusive learning environment.
- Provided valuable academic support to students through weekly office hours, grading homework assignments, and exams, achieved a student passing rate above 80%

General Atomics Aeronautical Systems Inc. - *Configuration Management Engineering Intern* 2019

- Assists in analyzing systematic data to build efficiency for the engineering department, investigate and resolve non-routine problems
- Responsible for observing all laws, regulations and other applicable obligations wherever and whenever business is conducted on behalf of the company
- Assists in developing electronic and hard copy reports, records, diagrams and charts through Power BI
- Created a 30 page document that outlined how to comprise and organize data and present findings

California State University, San Marcos - *STEM Center Tutor* 2018 - 2020

- CRLA Certified Tutor Level 3 (2020), provided guidance to enhance student academic performance.
- Tutored mathematics from remedial to upper division
- Catered to a diverse student population monitoring and assessing student performance,
- Provided adaptive targeted remediation to meet individual learning requirements by creating over 20 course study materials and cheat sheets

Featured Talks and Articles

- California State University Mathematical Conference, Woodland Hills, CA: Hamiltonian Neural Network Exploration for Electron Particle Tracking-*November 2022*
- Colloquium at California State University San Marcos, San Marcos, CA: Hamiltonian Neural Network Exploration for Electron Particle Tracking and careers in STEM with a mathematics degree- *October 2022*
- NERSC News: NERSC Summer Student Applies Machine Learning to Particle Accelerator Design Challenge: <https://lnkd.in/gJaRXgbg>

California State University Long Beach, Masters of Science

2023

Applied Mathematics, GPA: 3.7

Thesis Project: Hamiltonian Neural Network Exploration for Electron Particle Tracking

California State University San Marcos, Bachelor of Science

2020

Mathematics