2022 Edge Al Summer Institute (EASI-22)

Wednesday June 22, 2022 - Friday June 24, 2022

Are you curious about how Artificial Intelligence (AI) can be used to improve your everyday life? Do you ever wonder how your cell phone understands and responds to a question that you ask it? Have you heard the term Artificial Intelligence (AI), or Machine Learning (ML), but aren't sure about possible uses of ML or AI, or how you might prepare for a career in this field?



This 3-day, hands-on/virtual workshop for high school teachers and students will give you experience in developing a real-world, applied application of artificial intelligence (AI) at the edge through hands-on examples of Tiny Machine Learning (TinyML). TinyML is a cutting-edge field that brings the transformative power of machine learning (ML) to small low-power computing devices. This course will expose participants to the applications, algorithms, hardware, and software of TinyML.

Participants will be given an <u>Arduino Tiny Machine Learning Kit</u> which they will use for hands-on exploration of the opportunities and challenges of TinyML by deploying and testing their own TinyML models. Following the completion of the course, students will be well positioned to excel in the <u>HarvardX Professional Certificate Program in Tiny Machine Learning</u>, a free online MOOC that dives deeper into the world of Tiny Machine Learning with more hands-on experiences.

This program is a collaboration between Navajo Technical University, the Harvard John A. Paulson School of Engineering and Applied Sciences, and Barnard College, Columbia University, and will be run virtually from June 22 to June 24, 2022. The workshop is open to middle and high school teachers and students. We will be accepting up to 50 attendees and preference will be given to students and teachers enrolled at schools that serve the Navajo Nation. Please visit https://tinyMLedu.org/EASI-22 for more information on this program and to apply!





Application deadline is June 1, 2022. We look forward to exploring TinyML with you this summer.

Teachers selected for the workshop will be compensated for their time.

Tentative Workshop Schedule

| Day | Date | Topics |
|-------|-----------------|--|
| Day 1 | Wednesday, 6/22 | Introduction to (Tiny)ML and Data Engineering |
| Day 2 | Thursday, 6/23 | Introduction to Keyword Spotting for the Navajo Language |
| Day 3 | Friday, 6/24 | Bringing AI/ML from the Cloud to the Real World |