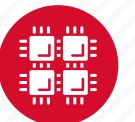


ML Movie Night: A Pilot Machine Learning Course for High-School Students

Presented at:

EduHPC-23: Workshop on Education for High-Performance Computing

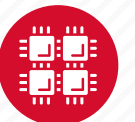
Evan Jaffe, Scientific Applications Engineer
The Ohio Supercomputer Center



ML Movie Night: A Pilot Machine Learning Course for High-School Students



- **Goal:** Introduce high-school students to ML on HPC in compressed format
- **Approach:** Jupyter notebook running on Open OnDemand, text classification with scikit-learn + text generation
- **Context:** Summer Institute at the Ohio Supercomputer Center (OSC), a 2-week summer program for STEM enrichment

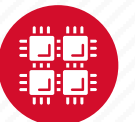


ML Movie Night: A Pilot Machine Learning Course for High-School Students

• Teaching Strategies



- No Grades – emphasize engagement, self-direction
- Visual aids – videos, simplify complex concepts
- Small group size – 5 students
- Time management – collective goal setting and check-ins, frequent breaks



ML Movie Night: A Pilot Machine Learning Course for High-School Students

- **Outcomes and Extensions**



- Final group presentation
- Positive feedback on exit surveys
- Reinforcement learning for video games, speech (phoneme) recognition with formant classification

