NAIRR Pilot

DEMOCRATIZING AI TRAINING AND ACCESS STATEWIDE

March 26, 2026

Hazard Community and Technical College
First Federal Center - Banquet room 123A
9:15 AM - 4:15 PM

AGENDA

9:15 AM	**WELCOME**	**DR. JENNIFER LINDON** *President, Hazard Community & Technical College*
9:20 AM	WORKSHOP GOALS & OVERVIEW	**CAROLINE LEACH** *Program Manager, Democratizing AI Access & Training Statewide*
9:30 AM	INTRODUCTION TO AI & AI-READY DATA	**AARON MULLEN** *Software Developer, Center for Applied AI*
10:15 AM	AI, THE WORKFORCE, & HIGHER EDUCATION	**TRAVIS MUNCIE** *Assistant Vice President, Data and Advanced Analytics, Council for Postsecondary Education*
10:45 AM	MACHINE LEARNING	**AARON MULLEN** *Software Developer, Center for Applied AI*
11:15 PM	ACCESSING NAIRR PILOT RESOURCES	**CAROLINE LEACH** *Program Manager, Democratizing AI Access & Training Statewide*
11:30 PM	**LUNCH BREAK**	
12:15 PM	HOST REGION SPEAKERS	**DANNA BARNETT** *Director of Entrepreneurship, SOAR* **RUSTY JUSTICE** *Co-Founder, Bit Source*
1:00 PM	GENERATIVE AI & VIBE CODING	**VAIDEN LOGAN** *Software Developer, Center for Applied AI*
1:30 PM	FOUNDATIONAL MODELS & LLMS	**MITCHELL KLUSTY** *Software Developer, Center for Applied AI*
2:00 PM	COMPUTER VISION	**VAIDEN LOGAN** *Software Developer, Center for Applied AI*
2:30 PM	**COFFEE & PEER NETWORKING**	
2:45 PM	AI PIPELINES	**MITCHELL KLUSTY** *Software Developer, Center for Applied AI*
3:30 PM	APPLIED AI PANEL	**SUBJECT MATTER EXPERTS** *Center for Applied AI*
4:00 PM	**CONCLUSION**	**CAROLINE LEACH** *Program Manager, Democratizing AI Access & Training Statewide*

KENTUCKY COMMUNITY & TECHNICAL COLLEGE SYSTEM
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SPEAKER BIOGRAPHIES



TRAVIS MUNCIE

Travis Muncie is the Assistant Vice President for the Data and Advanced Analytics unit at the Kentucky Council on Postsecondary Education (CPE). In this role, he oversees the agency's datastrategy, information systems, policy research, and application development. Travis has an extensive background in higher education information systems and was the chief architect of the agency's Interactive Data Center. He also led the development of the accountability framework for Kentucky's 2022-2030 Strategic Agenda for Postsecondary Education. Travis holds a B.A and M.S. from Morehead State University and is currently pursuing his doctorate in the Studies in Higher Education PhD program at UK.



DANNA BARNETT

Danna Barnett is the Director of Entrepreneurship at Shaping Our Appalachian Region (SOAR), where she leads the Business and Innovation Unit as the designated Innovation Hub for Eastern Kentucky through KY Innovation and the Kentucky Cabinet for Economic Development. She leads a tech-driven entrepreneurial ecosystem, develops programming for student and community entrepreneurs, and connects Eastern Kentucky to statewide and national innovation resources. Danna also oversees the Eastern Kentucky Runway Social Enterprise Accelerator, supporting businesses that address workforce barriers such as childcare, housing, and transportation. She leads AI-focused programming, including AI Startup Sprints and integrating AI into accelerator curriculum, equipping founders with practical tools for innovation and growth. She earned a BBA from UK in Marketing with a minor in Communication and holds a Credential of Readiness from Harvard Business School Online. Passionate about mentoring the next generation, she is committed to advancing leadership, innovation, and economic opportunity in Appalachia.



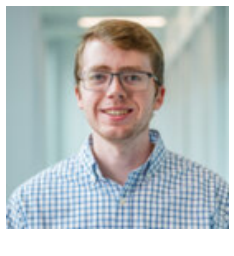
RUSTY JUSTICE

Rusty Justice is an entreprenuer from Eastern Kentucky. His business investments provide services in engineering, mining, telecom land development, software, and broadcasting. He holds degrees from UK in Mining and Civil Engineering and is a Fellow in the UK Engineering Hall of Distinction. He is also a graduate of MIT's Regional Entrepreneurial Accelerator Program and a founding member of Accelerate Kentucky, a nonprofit focused on supporting Kentucky's entrepreneurs and innovators. Rusty combines his love for business and engineering with a deep appreciation for Appalachia's rich heritage. He works to leverage his capabilities to grow the local economy through diverse projects with cultural value that celebrate the Appalachian identity and promote its future.



CAROLINE LEACH

Caroline Leach is a Data Management Specialist at the Center for Applied AI and Program Manager for Democratizing AI Training & Access Statewide. With a background in physics and experience in ed-tech & nonprofit organizations, her work focuses on prototype development and product management, supporting researchers from concept through successful execution of applied AI projects.



AARON MULLEN

Aaron Mullen is a Software Developer at the Center for Applied AI. He began his work with the group as an undergraduate intern and now holds a graduate degree in Data Science. His expertise includes machine learning and data visualization, working on projects leveraging classification and time series forecasting.



VAIDEN LOGAN

Vaiden Logan is a Software Developer at the Center for Applied AI. With a background in Computer Engineering and pursuing a graduate degree in Computer Science, Vaiden's work focuses on large language models and the DGX computing cluster. He's experienced in building systems that integrate AI across a variety of applications.



MITCHELL KLUSTY

Mitchell Klusty is a Software Developer at the Center for Applied AI. With a background in Computer Science and as a graduate student in Computer Science, his work focuses on the development and application of large language models and computer vision systems, with an emphasis on secure systems design and analysis.

WIFI: KCTCS-STUDENT-GUEST

Website: https://caai.ai.uky.edu/about-us/news-and-events/nairr-pilot-expansion-project/
Technical Hub Site: hub.ai.uky.edu/

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AI VOCABULARY

Agent	An AI system that can reason, plan, and take actions (such as calling tools or APIs) to achieve a goal autonomously.
API	(Application Programming Interface) A structured way for software systems to communicate with each other using defined requests and responses.
Attention / Self-Attention	A mechanism that allows a model to weigh the importance of different parts of the input when processing each element. Self-attention computes attention within the same sequence, helping the model understand context and relationships.
Computer Vision	Transforms how organizations process visual information by detecting patterns in images and video.
Deep Learning	A subset of machine learning that uses neural networks with many layers to learn complex patterns from large amounts of data.
Embeddings	Mathematical representations that enable AI systems to understand relationships between concepts.
Foundation Models	Large-scale machine learning models trained on vast and diverse datasets that can be adapted to many downstream tasks (e.g., text, images, code) rather than a single specific task.
LLM	(Large Language Model) A neural network trained on vast amounts of text data to understand and generate human-like language across a wide range of tasks.
Machine Learning	Enables systems to discover patterns in data without explicit programming for every scenario.
Multimodal AI	Processes different information types simultaneously (e.g., text, images, audio) to provide comprehensive analysis and decision-making.
Pre-training	The initial training phase where a model learns general patterns from large datasets before being adapted to specific tasks
RAG	(Retrieval-Augmented Generation) Combines the reasoning capabilities of language models with access to current, specific information sources for accurate, up-to-date responses.
Self-Supervised Learning	A form of unsupervised learning where labels are automatically generated from the data itself to train the model.
Supervised Learning	Training where the model learns from labeled data (inputs paired with correct outputs).
Transfer Learning	The practice of reusing a pre-trained model on a new, related task, reducing training time and data requirements.
Tokenization	The process of breaking raw input (text, code, etc.) into smaller units called tokens that a model can process.
Tool Calling	Extends AI capabilities beyond core functions by enabling access to external services and software while maintaining conversation flow.
Transformer	A neural network architecture that processes sequences in parallel using attention mechanisms, enabling efficient learning of relationships between elements in data such as words in a sentence.
Unsupervised Learning	Training where the model discovers patterns or structure in unlabeled data without explicit target outputs.

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NAIRR Pilot

National Artificial Intelligence Research Resource Pilot

NAIRR is a multi-agency public-private pilot coordinated by the NSF to connect U.S. researchers and educators to computing capacity, tools, data, and training resources for AI research. Read more about NAIRR on their website: nairrpilot.org/about/overview

We've created this document to highlight some key information and list relevant links for your reference after the event, please visit the NAIRR Pilot website for the latest information.

Applications for NAIRR Pilot resources are accepted on a rolling basis.

- Proposals accepted at any time (<3 pages)
- Proposals peer-reviewed approximately monthly
  - Soft deadline: 15th of the month
  - Selected awards notified generally within 3 months
- If awarded, there will be resource onboarding between NAIRR Pilot Resource and Proposer
- Use of NAIRR project resources must be completed within 12 months, can be shorter duration (specific opportunities may be shorter). Proposers may have multiple submitted proposals and/or active projects.

Information about currently available resources for researchers is at nairrpilot.org/opportunities/allocations, and for educators at nairrpilot.org/opportunities/education-call. Instructions for proposals can be found at nairrpilot.org/nairr-pilot-proposal-instructions.

Remember: Mention your participation in this NAIRR Pilot Expansion Project in your proposal!

Need more information?

- Check out the NAIRR YouTube channel (youtube.com/@NAIRRPilot) for videos including a step-by-step request walkthrough: How to request resources (with slides linked in the video description)
- The NAIRR Pilot website has an FAQs page (nairrpilot.org/help/faq)
- NAIRR Pilot Program offers Office Hours every second Tuesday 3–4 PM EST and fourth Wednesday 12–1 PM EST (nairrpilot.org/help/office-hours)

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