



MISSISSIPPI ARTIFICIAL INTELLIGENCE NETWORK

Our nation's first statewide artificial intelligence (AI) initiative.

<https://mainms.org/>



MAINstreaming AI: Education, Ethics, and Economic Development in Mississippi

Dr. Kollin Napier

Director

Mississippi Artificial Intelligence Network (MAIN)

Mississippi Gulf Coast Community College (MGCCC)

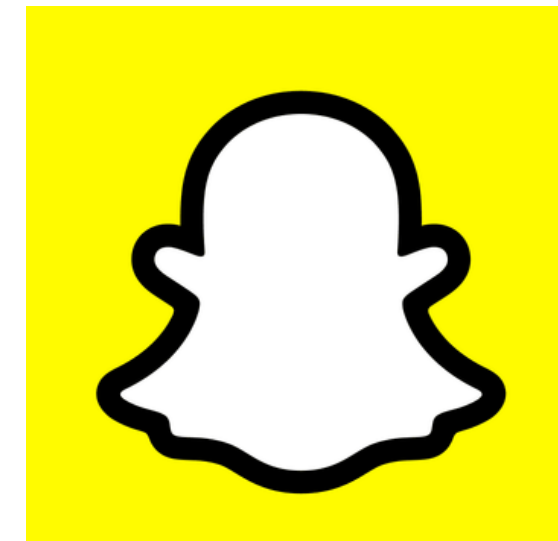
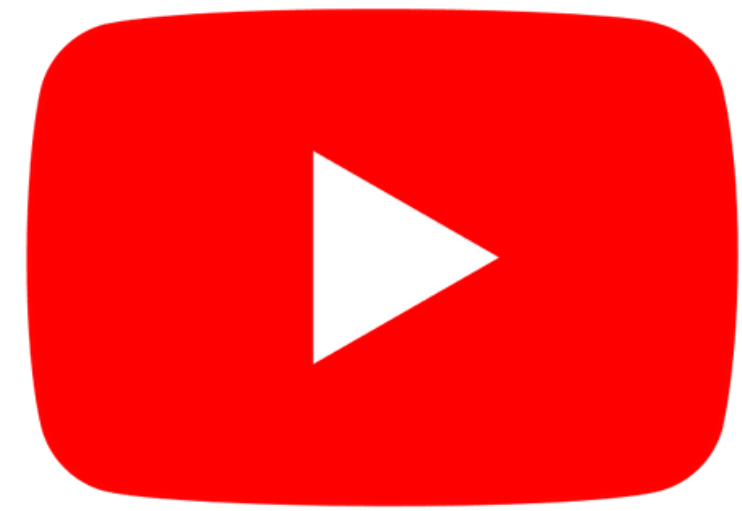
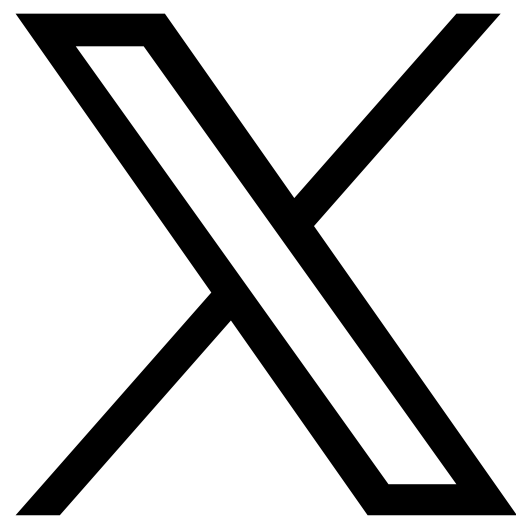
“ I WILL NEVER USE AI ”

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>





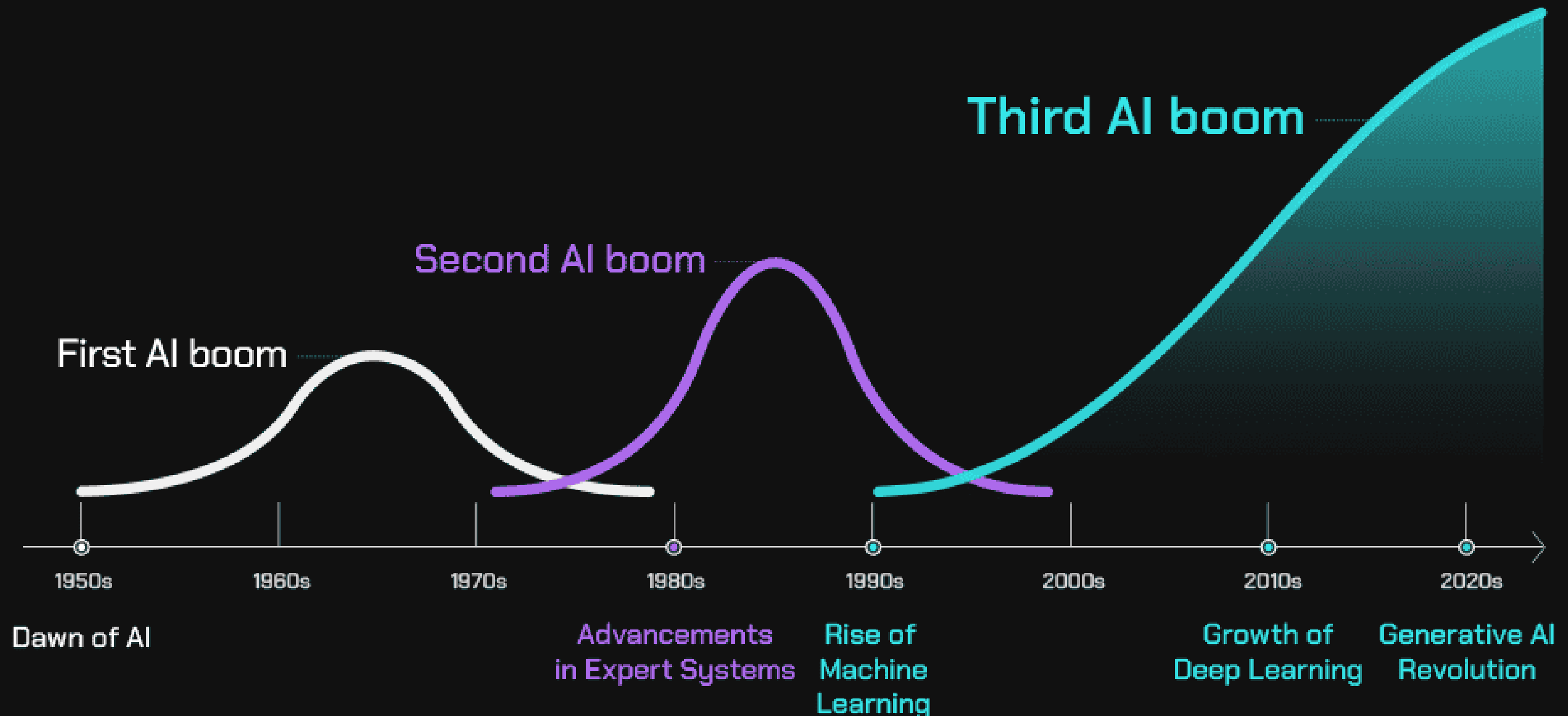
Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



The Evolution of AI Through the Decades



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

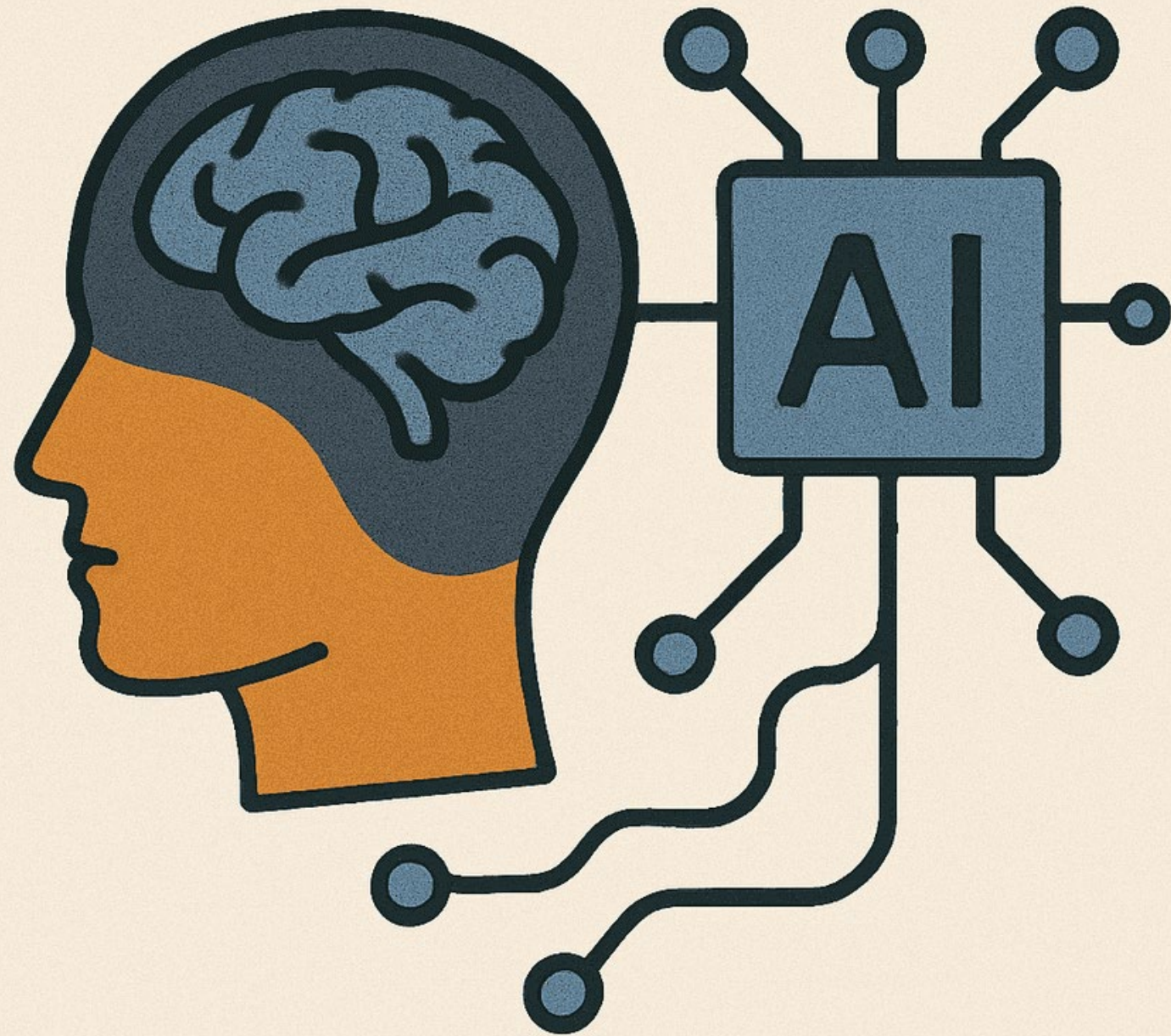
<https://mainms.org/>



Understanding AI

AI vs GenAI

- **AI (Artificial Intelligence):**
 - A broad field where machines mimic human intelligence, performing tasks like learning, reasoning, and decision making (e.g., fraud detection, risk scoring).
- **Generative AI (GenAI):**
 - A subset of AI focused on creating content such as text, images, or code, using models trained on large datasets (e.g., ChatGPT, image generators).
- **In short:**
 - AI analyzes and acts; GenAI creates and converses.



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Prompt Engineering

Exploring Definitions

Prompt / Context Engineering:

The skill of crafting clear, specific instructions for AI tools like ChatGPT to get better, more useful responses. (GIGO)

Okay Prompt:

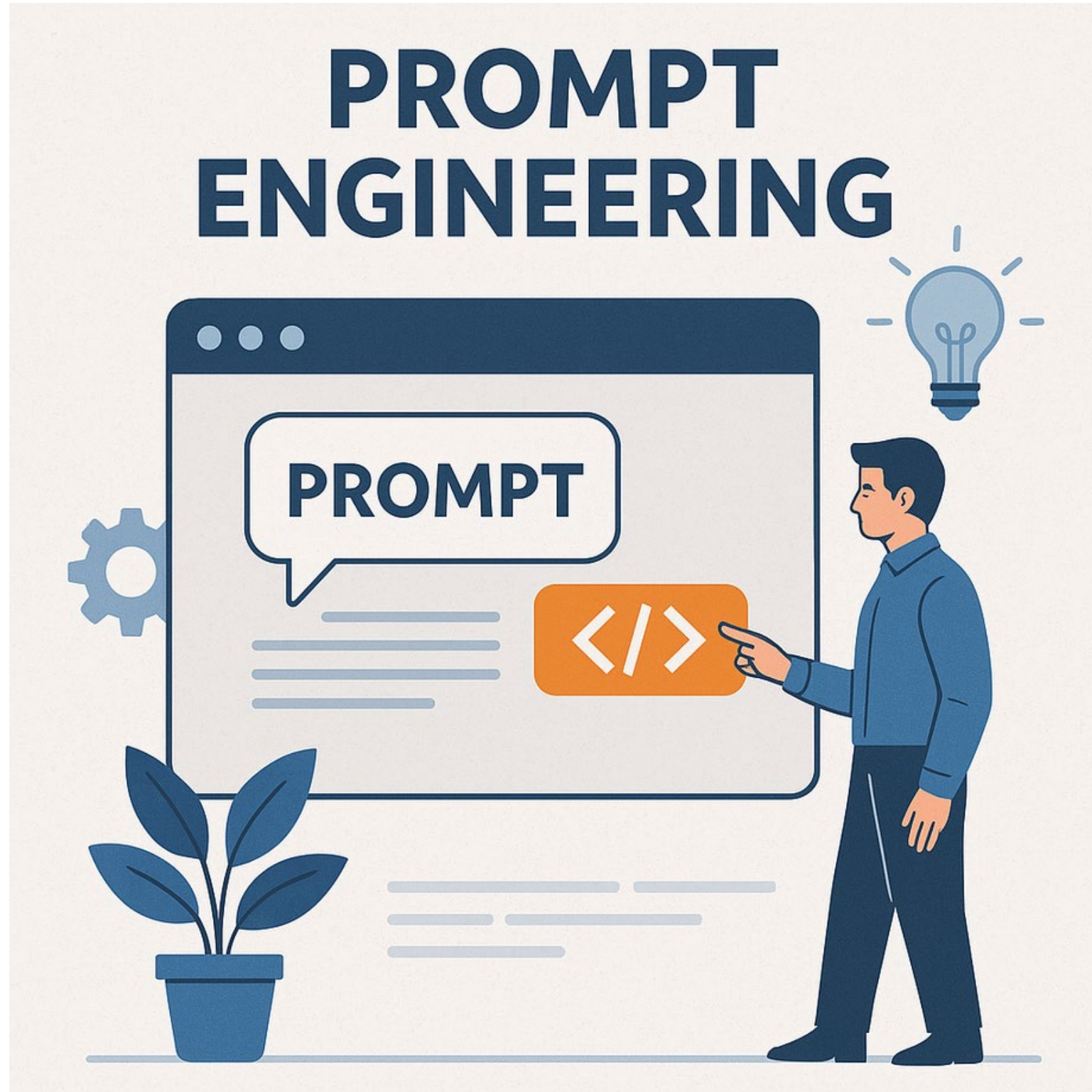
“Explain AI in Air & Waste Management.”

Good Prompt:

“Summarize how AI is being used in air and waste management to monitor pollution, optimize waste collection, improve recycling processes, and support regulatory decision -making. Use clear, accessible language and include real -world examples relevant to Southern towns and cities.”

In short:

Prompt engineering is how you ask to get what you need from AI.

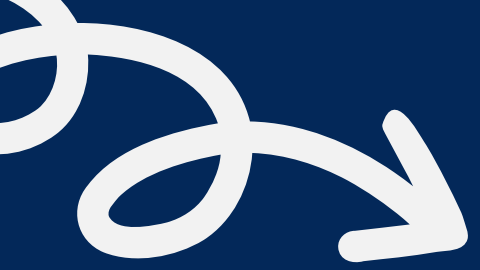


Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>





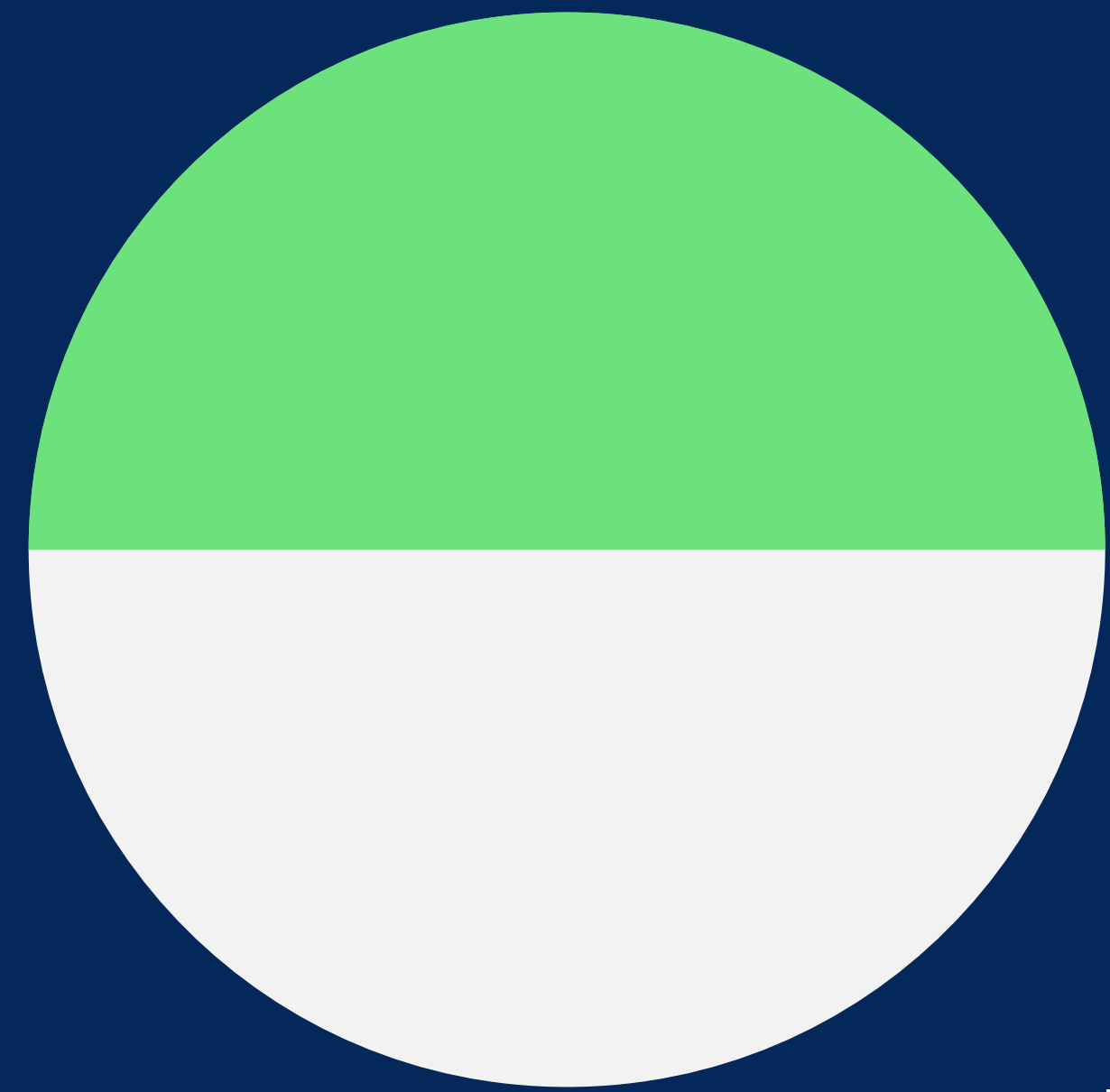
AI in Environmental Management: The Benefits

Accelerated Data Analysis: Quickly analyze vast datasets from soil samples, well logs, and regulatory documents to find patterns and compliance gaps.

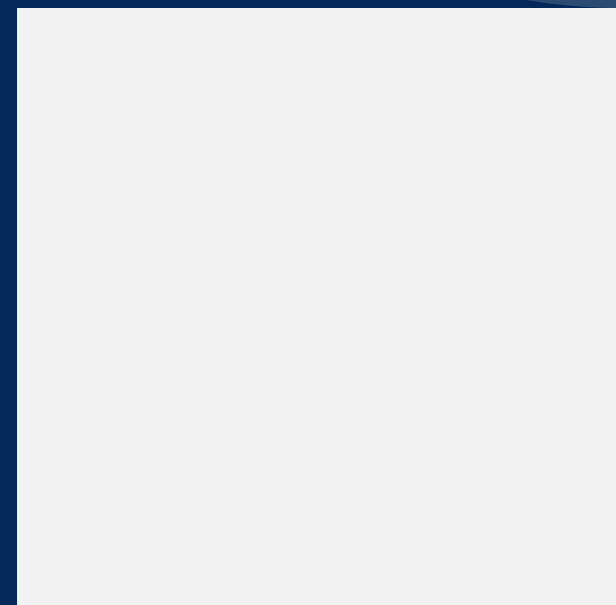
Enhanced Monitoring & Predictive Modeling: Use AI to forecast air quality, track waste, and predict infrastructure needs.

Proactive Risk Management: Forecast natural disasters and use AI-enabled drones for infrastructure inspection.

Visuals: Icons for data, a magnifying glass, a line graph, and a drone.



Mississippi Artificial Intelligence Network (MAIN)
Dr. Kollin Napier - MAIN Director
<https://mainms.org/>



Use Case Examples:

- **Real-world examples:** Air quality monitoring, flood forecasting, waste collection optimization, regulatory compliance scanning
- **Focus on:** Cost savings, citizen experience, and operational efficiency



Air Quality

The UNEP/IQAir partnership uses AI to analyze data from thousands of stations to provide real-time air quality insights.



Flood Forecasting

Models like UKRI's Fathom use machine learning to fill data gaps and predict flood risk, helping companies and communities prepare.



Waste Management

AI is used to optimize collection routes, reducing fuel consumption and emissions.



Legal/Regulatory

AI-powered tools can scan thousands of regulatory documents, quickly identifying key clauses and potential compliance issues.

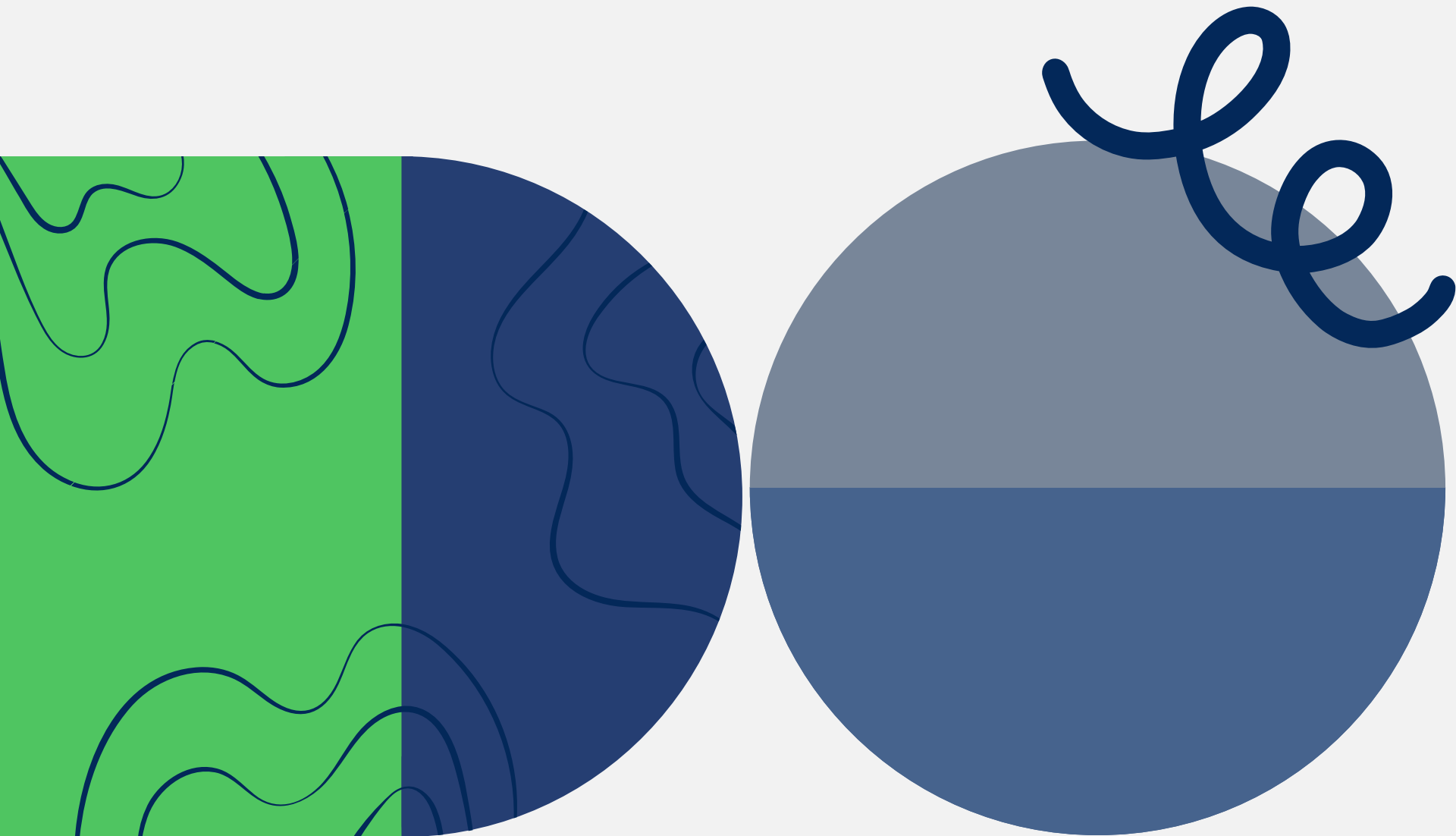
Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Potential Detriments & Challenges



- **The "Black Box" Problem** : It's often difficult to explain why an AI made a particular decision. (Relevant for legal and regulatory challenges.)
- **"Garbage In, Garbage Out"** : AI is only as good as its training data. Biased or incomplete data leads to flawed conclusions.
- **Environmental Impact of AI Itself** : The energy and water consumption of large data centers for AI training is a significant ethical paradox.
 - **Mississippi's Power Play** can accelerate the transition to renewable energy and greener data centers, turning an ethical challenge into a sustainability opportunity.
- **Security & Misuse Risks** : AI systems can be weaponized for cyberattacks, deepfakes, or large-scale misinformation campaigns.

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Ethical Considerations

- **Bias and Fairness** : Ensure the data used is equitable and that AI's applications do not perpetuate existing injustices in environmental enforcement or site selection.
- **Accountability and Liability** : Clear frameworks are needed to determine who is responsible when an AI -driven decision causes harm.
- **Transparency and Explainability** : Demand "explainable AI" to ensure we can defend our work and maintain professional integrity and public trust.

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



WHAT IS MISSISSIPPI DOING ABOUT AI?

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



**WHAT IS MISSISSIPPI
DOING ABOUT AI?**

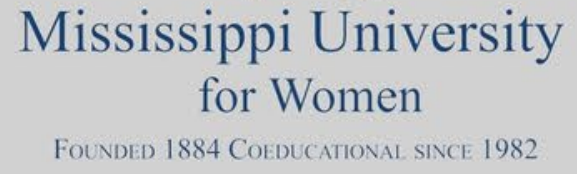
**MISSISSIPPI ISN'T
WAITING ON AI,
WE'RE LEADING IT.**

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>





MISSISSIPPI ARTIFICIAL INTELLIGENCE NETWORK

Our nation's first statewide artificial intelligence (AI) initiative.



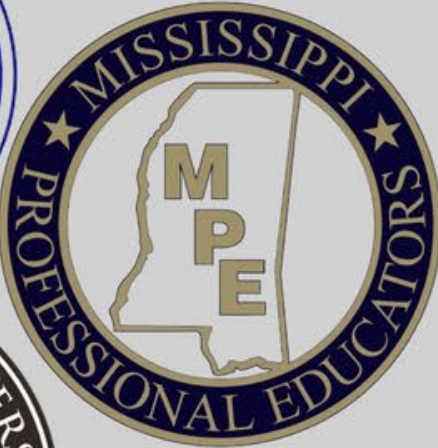
Mississippi Department of Information Technology Services

ACCELERATE MS Mississippi Gulf Coast Community College





MISSISSIPPI
DEPARTMENT OF
EDUCATION



THE UNIVERSITY OF MISSISSIPPI
MEDICAL CENTER

MAIN

MISSISSIPPI ARTIFICIAL INTELLIGENCE NETWORK

Our nation's first statewide artificial intelligence (AI) initiative.



MISSISSIPPI
CYBER
INITIATIVE



MASS

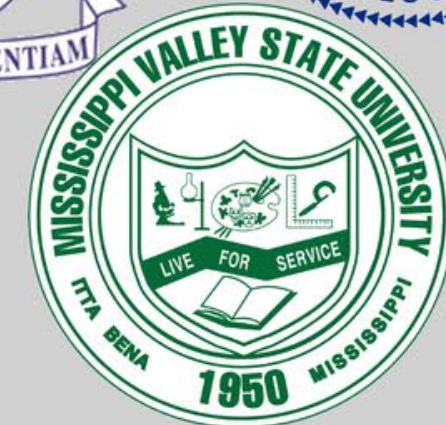
MISSISSIPPI ASSOCIATION OF
SCHOOL SUPERINTENDENTS



MISSISSIPPI STATE UNIVERSITY™
CENTER FOR CYBER EDUCATION



MISSISSIPPI STATE UNIVERSITY™
RESEARCH & CURRICULUM UNIT



AND MORE!



MAIN AI Education & Innovation Ecosystem

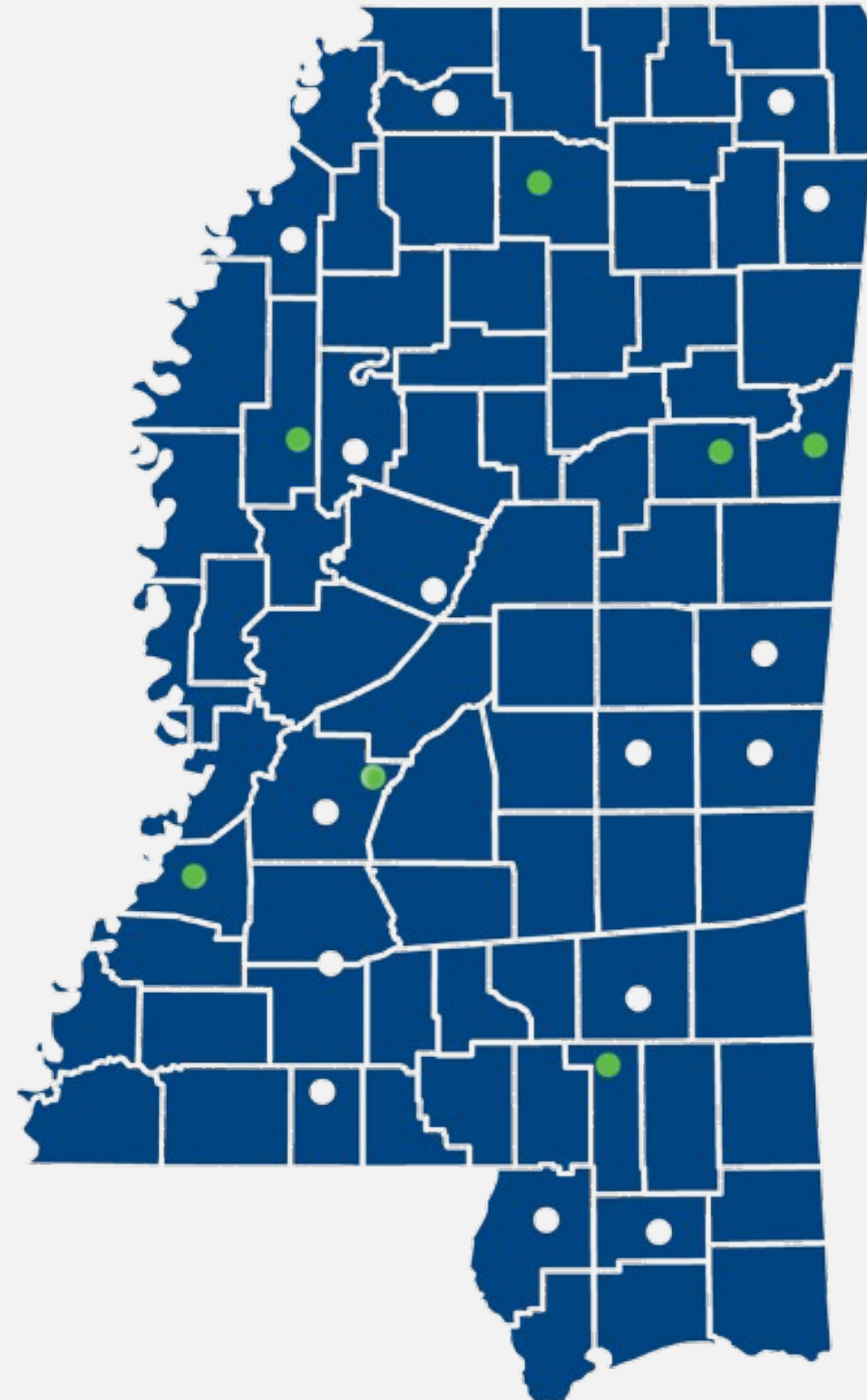
The nation's FIRST statewide AI initiative

AI Courses: Empowering Educators & Workforce

Intel AI for Workforce Curriculum – Cutting-edge AI training for workforce development.

Open to All – Employees, students, and professionals can enroll through MAIN partner institutions.

Train the Trainer Advantage – Educators gain exclusive access to lesson plans, learning objectives, and structured teaching resources.



AI Labs: Enabling Institutional Innovation

Strategic Investment – Funding provided to MAIN partners for AI labs with state-of-the-art equipment.

Driving AI Adoption – Supporting new degrees, programs, research, and curriculum enhancement.

Advanced Learning Environments – Labs offer industry-standard tools to enhance hands-on AI education.

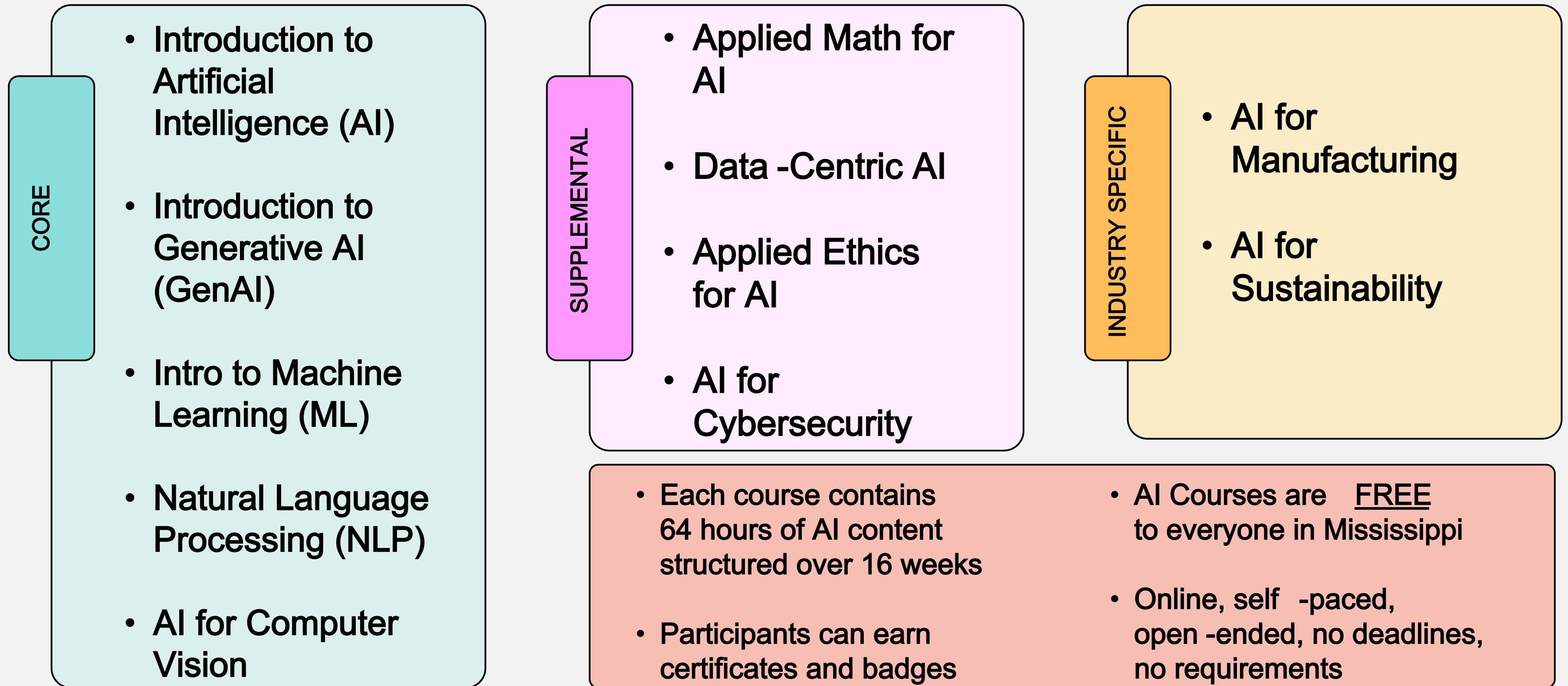
Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



AI for Workforce - FREE Comprehensive Courses



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Mississippi's \$110 Million Investment Lays Foundation for Future Economic Development Success

JACKSON, Miss. – Governor Tate Reeves today announced the state of Mississippi is investing over \$110 million toward economic development, infrastructure upgrades, workforce development, tourism, and conservation efforts throughout Mississippi.

MGCCC receives \$7.1 Million RESTORE Act Grant to advance nation's first statewide AI initiative



Today, the Mississippi Governor's Office announced an award of a \$7.1 million RESTORE Act grant to Mississippi Gulf Coast Community College to expand the Mississippi Artificial Intelligence Network (MAIN). As the nation's first statewide AI initiative, MAIN is a collaborative effort among all 15 Mississippi community colleges, multiple universities, and public and private organizations, uniting under a common goal of transforming Mississippi's economy and workforce through artificial intelligence.

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Are you...

A state agency with a real-world AI challenge to solve?

A student eager to build and innovate with AI?

An educator seeking industry-relevant problems for your students?

Explore the AI Innovation Hub!

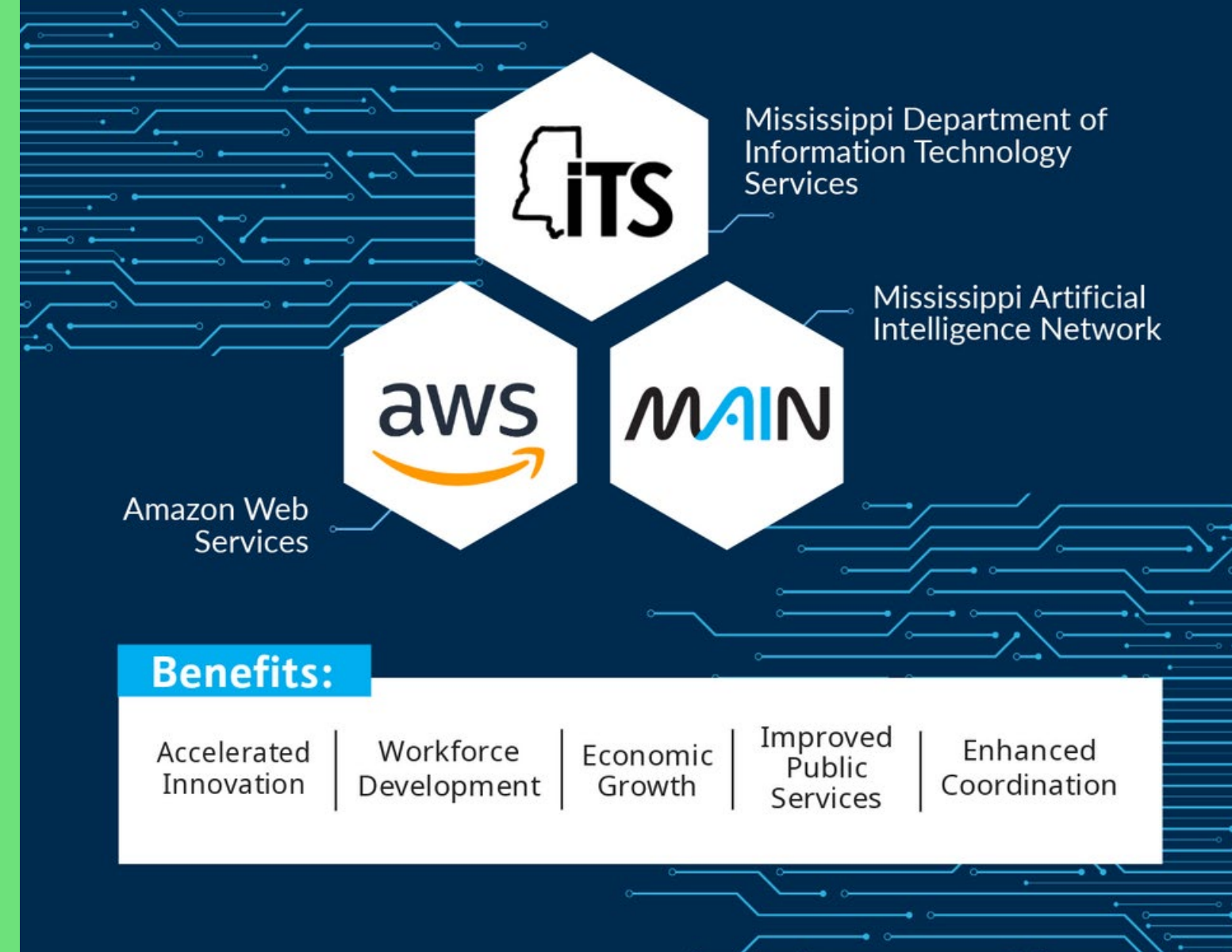
Ready to get involved?

Scan the QR code to learn more and submit a use case or request for training!



AI Innovation Hub:

Powering the Future with ITS, AWS, and MAIN



Mississippi Artificial Intelligence Network (MAIN)

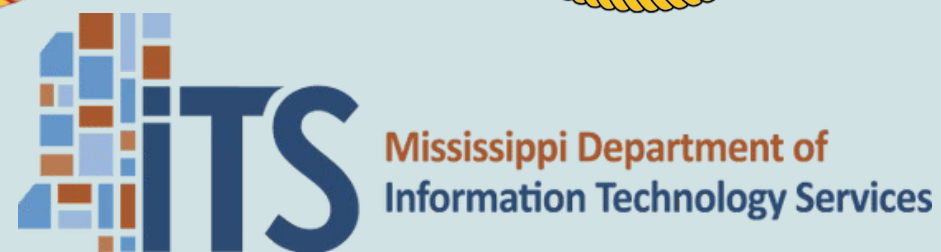
Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Senate Bill 2426

AN ACT TO ESTABLISH THE ARTIFICIAL INTELLIGENCE REGULATION (AIR) TASK FORCE; TO PROVIDE FOR THE APPOINTMENT OF MEMBERS OF THE TASK FORCE, INCLUDING EX-OFFICIO MEMBERS; TO SPECIFY THE TASK FORCE'S PURPOSE AND DUTIES; TO DIRECT THE TASK FORCE TO STUDY AND EVALUATE ARTIFICIAL INTELLIGENCE APPLICATIONS, RISKS AND POLICY RECOMMENDATIONS; TO REQUIRE THAT THE TASK FORCE WILL REPORT ITS FINDINGS AND ANY RECOMMENDATIONS TO THE LEGISLATURE ANNUALLY; TO AUTHORIZE FUNDS AND SUPPORT FOR THE TASK FORCE'S WORK; AND FOR RELATED PURPOSES.



MISSISSIPPI ARTIFICIAL INTELLIGENCE NETWORK

Our nation's first statewide artificial intelligence (AI) initiative.



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Governor Reeves Announces Launch of Mississippi AI Talent Accelerator Program, \$9.1 Million in Grants

C.J. Skelton

6–7 minutes

JACKSON, Miss. – Governor Tate Reeves today announced the launch of the Mississippi AI Talent Accelerator Program (MAI-TAP). MAI-TAP is a new initiative that fosters the development of artificial intelligence, machine learning, and related technical capacities across the state’s institutions of higher learning to support the expansion of Amazon Web Services in Mississippi. Additionally, the initiative creates training infrastructure that benefits the broader technology and information infrastructure sectors. The initiative is a partnership between AccelerateMS, the Mississippi Development Authority (MDA), and Amazon Web Services (AWS).

The newly established AI Workforce Readiness Council – through the State Workforce Investment Board and AccelerateMS – will facilitate this collaboration. The Council will be chaired by Dr. Kollin Napier of the Mississippi Artificial Intelligence Network, and each awardee will appoint a designated representative to actively participate on the council.



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



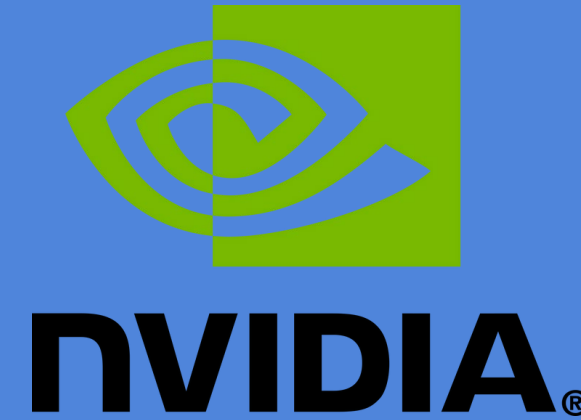
State of Mississippi to advance artificial intelligence education, innovation and workforce development with NVIDIA

C.J. Skelton

5-6 minutes

JACKSON, Miss. – The state of Mississippi has signed a memorandum of understanding (MOU) with NVIDIA to expand AI education, promote research collaboration, enhance workforce development and drive economic development through AI integration.

The signing of this MOU demonstrates Mississippi's commitment to developing a technologically advanced workforce and positioning the state as a leader in AI and emerging technologies. Through its collaboration with NVIDIA, Mississippi is helping drive innovation across key industries, including agriculture, healthcare, energy and defense.



Inc.

TECHNOLOGY

An Nvidia Partnership Makes Mississippi the Newest AI Hub



Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>



Opportunity: NVIDIA Faculty Ambassador

<https://mainms.org/nvidia>

- Bring free, world-class training to your academic community in a variety of settings —from the classroom to academic conferences (a value of \$500 per student)

- Early access to new teaching kits and free, online, self-paced DLI courses for students in your class
- Free instructor certification, a \$1,000 value
- Workshop-specific instructor certificates to demonstrate expertise

- And more!



Our nation's first statewide artificial intelligence (AI) initiative.

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>

Before You Leave Today – Take Action!

- ✓ Experiment with AI – Explore the possibilities and see AI in action!
 - ✓ Access FREE AI Resources– MAIN offers a variety of comprehensive, self-paced AI courses for everyone!
- ✓ Get Involved – Sign up for MAIN weekly newsletters, join MAIN quarterly meetings, and stay connected on LinkedIn, Facebook, and X!
- ✓ Stay Connected – Scan the QR code, visit the MAIN website, grab a flyer, or take a card!

Mississippi Artificial Intelligence Network (MAIN)

Dr. Kollin Napier - MAIN Director

<https://mainms.org/>





MISSISSIPPI ARTIFICIAL INTELLIGENCE NETWORK

Our nation's first statewide artificial intelligence (AI) initiative.

<https://mainms.org/>



MAINstreaming AI: Education, Ethics, and Economic Development in Mississippi

Dr. Kollin Napier

Director

Mississippi Artificial Intelligence Network (MAIN)

Mississippi Gulf Coast Community College (MGCCC)