AI-CCRE

UNIVERSITY OF NEBRASKA AT OMAHA

NEXT GEN AI STUDIO

Explore AI with NEXT GEN AI Studio — a hands-on learning academy where students build real-world intelligent apps and solutions.

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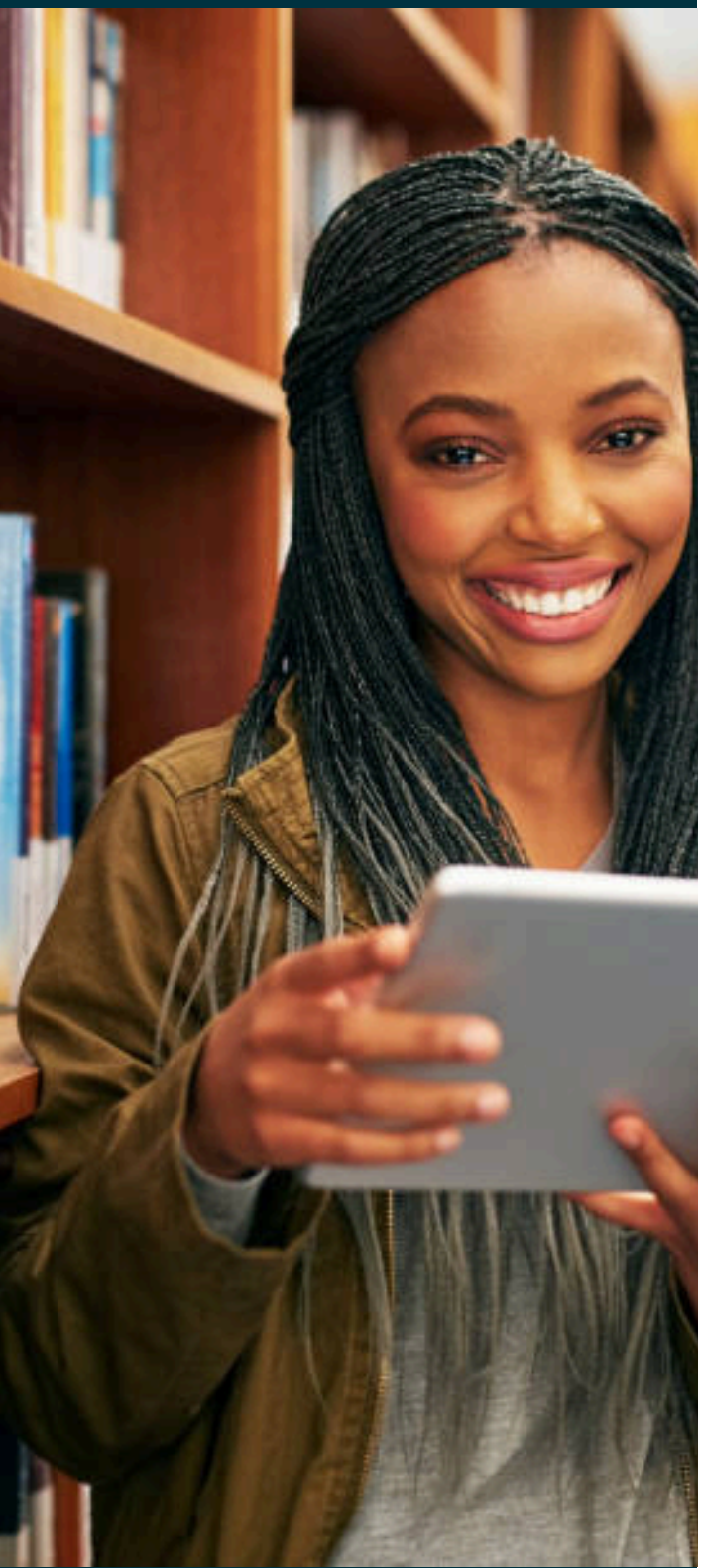


About NEXT GEN AI Studio

Artificial Intelligence (AI) is transforming industries—from healthcare and education to business and the arts. The NEXT GEN AI Studio is a 5-week immersive learning experience designed for high school juniors and seniors to explore the world of AI through hands-on projects, expert mentorship, and real-world tools.

Hosted at the University of Nebraska at Omaha (UNO), the program empowers students to move from curious learners to confident AI creators. Through collaborative sessions and guided experimentation, students explore how AI connects with their personal interests and future career paths.

Led by UNO's AI researchers and educators, this academy offers a supportive and engaging environment for students to discover the power and possibilities of artificial intelligence.

Who Is This Program For?

The NEXT GEN AI Studio is designed for high school juniors and seniors who are eager to explore the world of Artificial Intelligence — regardless of their technical background. Whether you're a budding coder, a creative thinker, or simply curious about emerging technologies, this program is built to meet you where you are.

This program is ideal for students who:

- Are preparing for college and want to stand out with real-world experience
- Are curious about AI and how it applies to everyday life
- Want to build intelligent tools and applications
- Enjoy creative, hands-on learning
- Want to explore how AI can power their passions — from science and sports to music and entrepreneurship

Program Overview

The NEXT GEN AI Studio is a 5-week summer learning academy designed to introduce high school juniors and seniors to the fast-evolving world of Artificial Intelligence. Students engage in in-person sessions at the University of Nebraska at Omaha, blending academic learning with creative problem-solving and collaboration.

Unlike traditional classes, this program emphasizes exploration, experimentation, and building. Participants interact directly with real AI tools and frameworks, guided by university mentors and AI Engineers. Each session builds confidence through hands-on activities that spark curiosity and encourage critical thinking.

Structured over multiple weeks, the studio balances instruction with project time and offers a supportive environment where students can freely explore how AI can power their ideas, interests, and future pathways.

Use AI not just to build apps, but to tell your story — in projects, portfolios, and standout college essays.

What You'll Build & Learn

Explore Generative AI

Learn how ChatGPT and LLMs work through guided prompts.

Learn about AI Agents

Learn how to create chatbots and task bots using Langflow, Make & N8N.

Design AI Pipelines

Automate intelligent workflows using no-code tools.

Build Real AI Projects

Apply AI to solve problems you care about — sports, music, medicine & more.

Present & Showcase

Showcase your project and get expert feedback from UNO mentors.

Learning Outcomes

AI Literacy for the Future

Gain a foundational understanding of how AI is shaping industries, and why ethical, informed use of AI is essential for tomorrow's leaders.

Problem-Solving Mindset

Develop computational and critical thinking skills through open-ended challenges, peer collaboration, and iterative design.

Responsible AI Awareness

Understand privacy, bias, fairness, and responsible design practices — preparing students to use AI thoughtfully and ethically.

Real-World Readiness

Build confidence in using modern AI tools and workflows commonly seen in professional environments and higher education.

Communication & Collaboration

Enhance teamwork and presentation skills by pitching projects, receiving mentor feedback, and iterating based on critique.

5- Week Curriculum

1 AI & LLM Foundations

- Learn how Large Language Models (LLMs) work
- Understand AI concepts: inputs, outputs, tokens, models
  Practice prompt engineering
- Set up tools like Langflow, Make, and N8N
- Explore responsible AI principles

2 Retrieval & Guardrails

- Discover Retrieval-Augmented Generation (RAG)
- Build search-powered AI workflows
- Add guardrails to make AI safe and predictable
- Use documents and real-world data in your bots

3 AI Workflow Design

- Chain tools and LLMs to build complete agent flows
- Design automations using Make and N8N
- Use APIs and webhooks to integrate data
- Create a functional prototype

4 Project Development

- Work in teams to design and test your AI project
- Build out user flows, input/output logic, and safety checks
- Collaborate, review, and refine your work
- Prepare for presentations

5 Present & Reflect

- Finalize your solution
- Pitch to mentors and peers
- Reflect on your learning journey
- Discuss next steps in AI and tech pathways

"AI isn’t just for coders. It’s for thinkers, creators, and problem solvers — like you."

Tools & Platforms Used

Langflow

OpenAI Playground

n8n

make
formerly Integromat

Google colab

python™

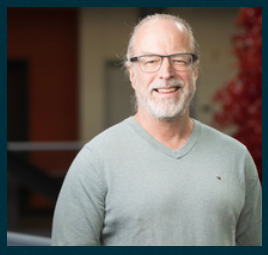
AI Experts

Mahadevan Subramaniam, Ph.D.
Department Chair
Computer Science

Xin Zhong, Ph.D.
Associate Professor
Computer Science

Prashanti Manda, Ph.D.
Associate Professor
Computer Science

Chun-Hua Tsai Ph.D.
Assistant Professor
Computer Science



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NEXT GEN AI STUDIO

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Join the journey. Shape tomorrow.

REGISTER NOW

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