College Pathways
Student Information Session

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ai-4-all.org
Who is AI4ALL?

AI4ALL is a national nonprofit that opens doors to the artificial intelligence industry for historically excluded talent through education and mentorship. We nurture a global community of students who learn AI fundamentals and who then apply those principles to solve society’s most pressing problems in deeply innovative and ethical ways. By telling a new story about who can be a leader in AI, we’re creating tomorrow’s AI leaders, and changing technology’s future. More information at www.ai-4-all.org.
AI4ALL’s long-term vision is to foster a community of diverse leaders across a variety of disciplines who influence AI in a positive direction.
What about you?

What schools are you from & what compelled you to be here today?
College Pathways programs spark interest and increase persistence in AI-related careers for college students from historically excluded groups.

Students completing College Pathways can join Changemakers in AI to get support to become leaders in AI with a social impact and ethics lens.

College Pathways programs complement AI coursework that university partners already offer.
Goals: Spark interest and increase persistence in AI-related careers for college students. Bring together and highlight voices that have been historically excluded, and that will lead and shape the future of AI.
AI4ALL Support All the Way

**DISCOVER AI**
AI/ML fundamentals & ethics

Learn the fundamentals of AI/ML & ethics through research, interactive discussions & hands-on activities.

**APPLY AI**
AI/ML Project & Mentorship

Work as a team to build an AI/ML project with guidance from industry mentors and student leaders.

Discover AI certificate required

*Some Python experience strongly encouraged*

**CHANGEMAKERS IN AI**
AI4ALL Alumni Community

Build your network and get access to internships and additional mentorship opportunities.

Apply AI certificate required

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Who we serve

AI4ALL programs are designed to bring together and highlight voices that have been historically excluded, and that will lead and shape the future of AI. We aim to serve the following students, especially those at the intersection of two or more of these identities:

- Indigenous Peoples, Black, Hispanic or Latinx, Pacific Islander, and Southeast Asian
- Trans and non-binary; two-spirit; cis women and girls
- Lesbian, gay, bisexual, asexual, and queer
- Students with a demonstrated financial need (for example, students who receive financial aid)
- First-generation college student

**Class Level:** Freshman, Sophomore, Juniors

**Majors:** All majors welcome. However, we also want to recruit CS majors
Discover AI @ a Glance

- 10-week virtual program - asynchronous and synchronous instruction

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<thead>
<tr>
<th>University</th>
<th>Day of Week</th>
<th>Time of Week</th>
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<tbody>
<tr>
<td>UTEP</td>
<td>Friday</td>
<td>1:30 p.m. - 3:00 p.m. CT</td>
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<tr>
<td>TAMU</td>
<td>Thursday</td>
<td>8 p.m. - 9:30 p.m. CT</td>
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<tr>
<td>NMSU</td>
<td>Thursday</td>
<td>12:00 p.m. - 1:30 p.m. MT</td>
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<tr>
<td>UIUC</td>
<td>Thursday</td>
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<td>UMBC</td>
<td>Friday</td>
<td>11:30 a.m. - 1:00 p.m. ET</td>
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<td>(9:30 a.m - 11:00 a.m. MT)</td>
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<td>AUC &amp; HBCU Schools</td>
<td>Tuesday</td>
<td>5:30 p.m. - 7:00 p.m. ET</td>
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<td>MDC</td>
<td>Monday</td>
<td>6:00-7:30 p.m. ET</td>
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<tr>
<td>UNT</td>
<td>Wednesday</td>
<td>3:30 p.m. - 5:00 p.m. CT</td>
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Our Essential Question
How can artificial intelligence impact our world?
Discover AI: What will you learn?

- Discover AI is a student-centered experience that exposes you to fundamental AI concepts through interactive discussions, conversations with AI experts, research and hands-on assignments. You will build your understanding of AI through the lens of societal impact and ethics.

  ○ Module 1: What is AI?
  ○ Module 2: Algorithms, Data, and Bias
  ○ Module 3: Gradient Descent
  ○ Module 4: Neural Networks
Discover AI Focus

AI Understanding: Introduction to technical AI concepts including common algorithms & terminology

Bias, Ethics & Impact: Critique & challenge the current landscape of AI through the lens of societal impact, bias and ethics.

Collaboration & Feedback: Work with your peers to discuss and address challenges in the AI space. Provide & receive peer-feedback.
**Reflections Assignments:** Reflect on your learning and engage classmates in meaningful discussions.

**Hands-on & Research Assignments:** Opportunities for you to deepen your understanding of the concepts presented in lectures.

**Peer Feedback:** Provide feedback on the teams’ proposals & final presentations.

**Final Project & Project Proposal:** Use creativity to educate your audience about AI & its ethical/societal impacts; answer our essential question. Showcase at the end of Discover AI.

**My AI Roadmap** outlining your next steps in your AI journey.

Complete all required assignments to receive certificate of completion.
# Course Structure & Components

**MODULES:** 1: What is AI?, 2: Algorithms, Data & Bias, 3: Gradient Descent, 4: Neural Networks

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pre-Recorded Lectures</td>
<td>Two to three pre-recorded video lectures</td>
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<tr>
<td>Reading &amp; Articles</td>
<td>Optional reading that provides context &amp; relevant examples</td>
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<tr>
<td>Research Assignments</td>
<td>Deepen your understanding of discussions through research</td>
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<tr>
<td>Ask Me Anything Panel</td>
<td>Live interactive conversation with an AI expert</td>
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<tr>
<td>Reflections &amp; Discussions</td>
<td>Reflect on your learning &amp; engage in discourse</td>
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<tr>
<td>Labs: Hands-On Activities</td>
<td>Synchronous instruction that focuses on hands-on activities</td>
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<tr>
<td>Ethics Discussions</td>
<td>Synchronous discussions with students and the instructor</td>
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<tr>
<td>Office Hours</td>
<td>Optional live instruction, discussions &amp; demos</td>
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Discover AI: “Ask Me Anything”

● The “Ask Me Anything” Series is an interactive virtual experience that gives AI4ALL’s Discover AI and Apply AI students an opportunity to connect with artificial intelligence role models who are artificial intelligence experts in industry, research and policy.

● These 30-minute conversations are meant to excite students about the diverse possibilities of artificial intelligence and inform them of the latest trends in industry, research and policy while exposing the successes and challenges of developing ethical AI solutions.

● Launched in Fall 2020, we’ve welcomed experts from Accenture, Oracle, Capitol One, IBM, Simpa, Lexis Nexis, Airbnb, etc.
During the Program

AI4ALL College Pathways Instructor

- A Teaching Assistant in the form of a student from your school that supports the program
- The AI4ALL student engagement team
Discover AI Important Dates & Applications

- Vary by school. Please visit your school’s application for more information

- Texas A&M
- University of Illinois, Urbana Champaign
- University of North Texas
- New Mexico State University
- University of Texas, El Paso
- The AUC Center (HBCU Schools - Morehouse, Spelman, and Clark Atlanta)
- University of Maryland, Baltimore
- Miami Dade College
How to apply to Discover AI

- Using the application link, submit a Discover AI program application
- To apply, use your school’s application link that will be provided to all interested students
- If you have friends or colleague that also want to apply, feel free to send them your school’s application link.

**APPLICATION REQUIREMENTS**

- Freshman, Sophomore, Junior only
- Open to all coding levels

Application Components:

- Essay question (500 words or less)
- Resume
- If under 18, parent approval form
Application Guidelines

- We welcome students at any level of coding experience (No experience, beginner, and beyond.)

- While Seniors may apply, the program is best suited for Freshman, Sophomore, and Junior Undergraduate students.

- All majors welcome, including Computer Science - but not exclusively.

- A focus on the student’s that we serve that are historically excluded from AI.
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College Pathways: Student Success

Vanessa
COLLEGE STUDENT

College Pathways at University of Illinois at Urbana-Champaign

DURING DISCOVER AI
As a Systems Engineering Major, Vanessa enjoyed collaborating with peers outside her major as part of the first Discover AI cohort. Her experience left her wanting to learn more about ethics in AI, particularly regulatory approaches.

DURING APPLY AI
Vanessa was motivated to participate in the first Apply AI cohort (in progress) in order to delve deeper into AI concepts and to gain more technical and coding skills. Her portfolio project focuses on looking at data from the 2016 election to better predict who voters might have chosen in the primaries.

“In the future I would like a career that works alongside the environment with technological advancements, so I would like to learn more about how we can use AI to help the environment and the people impacted by climate change.”
Kasar P.
College Student
AI4ALL ALUM

- Research intern at CUNY, where he developed sensors to monitor air quality, leading to creation of new lab at CUNY
- Salutatorian of high school class; plans to study astrophysics

Stephanie T.
College Student
AI4ALL ALUM

- Researching AI-assisted methods for tracking the flow of contaminated water in her hometown of Salinas, CA.
- Started AI club at local middle school, which has been running for 2 years.

Bekah A.
College Student
AI4ALL ALUM

- Summer research intern at MIT
- 2018 winner of National Center for Women & Information Technology National Award (NCWIT)
"[I participated in College Pathways because] I believed it would help me grow as a Computer Scientist. I believe AI is a powerful and amazing tool with the ability to do great things for society. I also believe AI needs to be used ethically and responsibly...This is a growing field, and I am excited to be a part of it...I find the topic fascinating."

- Female, first generation, computer science major who participated in the Spring 2021 cohort at New Mexico State University
College Pathways is possible because of this amazing team!

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Collectively, we have experience in the following areas:
CS, AI, & electrical engineering research • curriculum and instruction • student programming • higher ed • equity and inclusion
Questions?

Get in touch: collegepathways@ai-4-all.org
Collegepathways@ai-4all.org