



AI4ALL



College Pathways Student Information Session

Alvaro Rojas-Caamano



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ai-4-all.org




Alvaro Rojas-Caamano

University Partnerships Manager, College Pathways



- In this role, Alvaro manages relationships with universities and supports AI4ALL's overall mission by contributing to the scaling of the program
- Before joining AI4ALL, Alvaro worked in education for over 15 years
- Most recently, Alvaro worked at Columbia University's engineering school, where he oversaw the student engagement/life programming for over 2,000 graduate students—from onboarding to graduation
- Alvaro has a B.A. in Psychology from Montclair State University and a M.A. in International Education from New York University
- Alvaro joins AI4ALL with the belief that cultivating a more diverse and inclusive space in AI will become increasingly important as the industry and its technology evolve

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.**



AI
policymaker



Climate change
researcher



Artist



Bioinformatics
researcher

College Pathways

📍 U.S. University and College Campuses • Online • In Person

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.



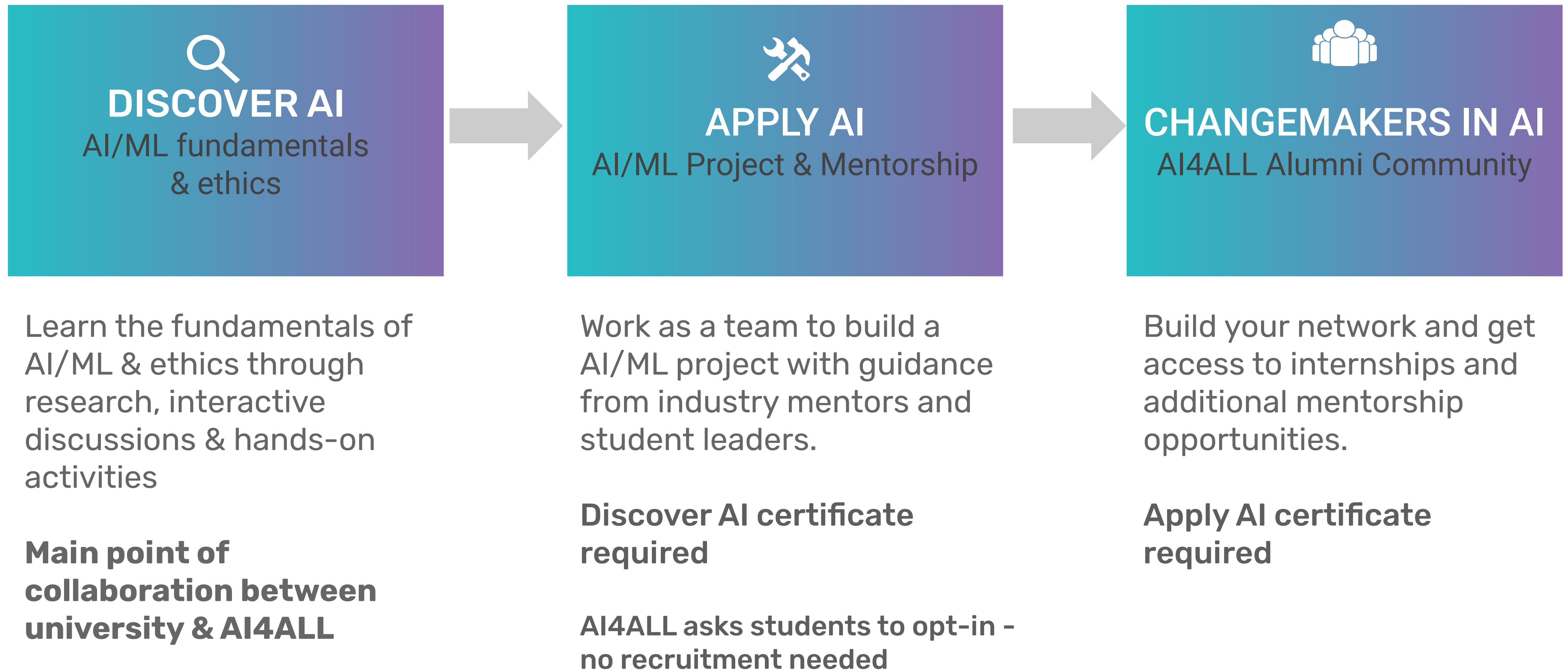
*College Pathways prepares students to **attract the attention of employers** and to **land their first AI internship** &*

***will hopefully Spark interest** and **increase persistence** in AI-related careers for college students*

*& finally bring together and highlight voices that have been historically excluded, and that will **lead and shape the future of AI***



COLLEGE PATHWAYS PROGRESSION



Discover AI



- Discover runs for 5-weeks in Fall 2022
- Synchronous and asynchronous instruction
- Likely for this year it will run in B Term of your academic calendar
- Program will have an application & admission process in beginning of A Term
- For now, fully virtual
- Upon completion, students receive a College Pathways Certificate of Completion & an invitation to join Apply AI program



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 as they relate to societal impact and ethics - through interactive discussions, conversations with AI experts, research and hands-on assignments.
- Our philosophy is not to lecture often, but rather provide hands-on activities, project based learning & peer collaboration



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.



Program Deliverables & Showcase

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

Structure & Components

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

Pre-Recorded Lectures	Pre-recorded video lectures
Reading & Articles	Optional reading that provides context & relevant examples
Research Assignments	Deepen your understanding of discussions through research
Ask Me Anything Panel	Live interactive conversation with an AI expert
Reflections & Discussions	Reflect on your learning & engage in discourse
Labs: Hands-On Activities	Synchronous instruction that focuses on hands-on activities
Ethics Discussions	Synchronous discussions with students and the instructor
Office Hours	Optional live instruction, discussions & demos

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.



WPI Team



- *A Discover AI College Pathways Instructor* (hired & managed by AI4ALL)
 - Teaches the program curriculum, implements grading and assessment & leads discussions
- The program's TA (hired by WPI)
 - Supports students in program & leads lab/office hours
- Programs Associate (Elizabeth Spent)
 - Supports in managing student engagement & community programming
- All work spaces will be provided by AI4ALL
 - Learning management system (EdSTEM)
 - Notebook to learn to read code (and very light coding)
 - No additional resources or textbooks needed to participate in program
 - The only item you will need is your own personal computer/laptop

College Pathways is possible because of this amazing team!



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[Elizabeth Spenst](#)

Program Associate

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**WPI INSTRUCTOR
& TEACHING
ASSISTANT**

TBD

Collectively, we have experience in the following areas:

CS, AI, & electrical engineering research • curriculum and instruction • student programming • higher ed • equity and inclusion



WPI Team



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How to apply to Discover AI



- Application will go live in A Term & will be sent to students by Professor Neamtu
- If you have friends or colleague that also want to apply, feel free to send them your school's application link.

APPLICATION REQUIREMENTS

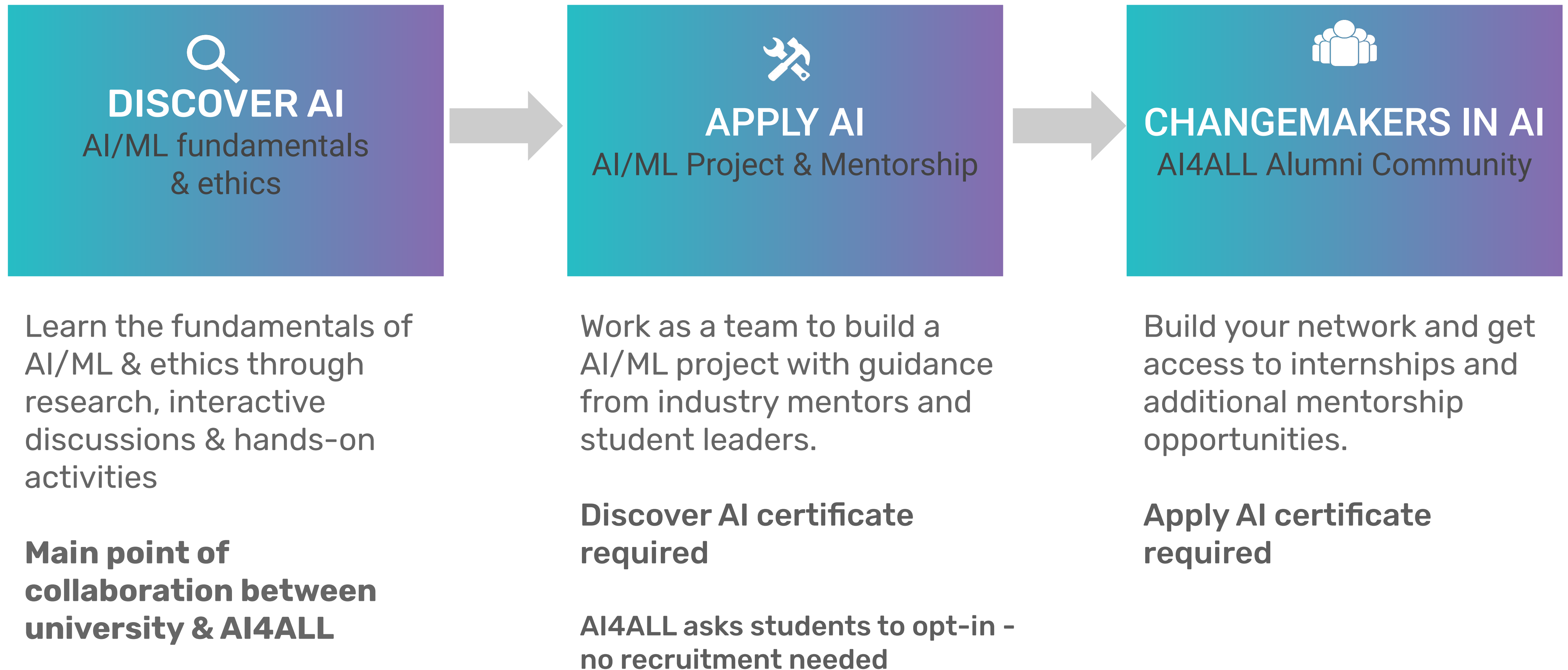
- Freshman, Sophomore, Junior preferred
- Open to all coding levels

Application Components:

- Essay question (500 words or less)
- Resume



COLLEGE PATHWAYS PROGRESSION CALLBACK



College Pathways: Student Success



Vanessa
COLLEGE STUDENT

College Pathways at University of
Illinois at Urbana-Champaign

Photo credit: Vanessa

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."



AI4ALL Talent: Potential Future Leaders in AI



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)



Reflections from a College Pathways student

"[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



Questions?

Get in touch:
rneamtu@wpi.edu





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APPENDIX



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Who is involved with the Discover AI program at your school day-to-day?



- *A Discover AI College Pathways Instructor* (hired & managed by AI4ALL)
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Changemakers



- AI4ALL programs' students will have the opportunity to be part of our alumni Changemakers program - an alumni network meant to support you in finding an internship in AI.
- In that program, College Pathways alumni have the opportunity to get support for career development in their AI professional journey.
 - Career fairs with tech/AI industry
 - Network with other AI4ALL participants across the US and keep in contact for your future job search in AI
 - Internship opportunities
- Can offer connections to industry partners through the program and in the future by offering opportunities to be placed in front of these companies in various alumni events, sessions, career fairs.
 - Salesforce
 - Capital One
 - Nielsen
 - Novetta
 - Accenture
 - Google
 - SAS
 - SoftBank
 - EY
 - Microsoft
 - Prudential
 - General Motors



What AI4ALL offers you



- Connections to tangible career pathway opportunities in the AI sector through a program that emphasizes leadership development.
- A perspective on AI where understanding ethics and societal impact is of equal importance to the technical content, all with the end goal of developing a diverse cohort of leaders who have the know-how to implement responsible AI.
- Access to community of peers that supports student retention along AI path.
- Access to industry mentors affiliated with AI4ALL's corporate partners in the AI sector.





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