



2016 IgniteSTEM Conference Attendee Information Packet

Congrats!

On behalf of the IgniteSTEM team, congratulations on your acceptance to the 2016 IgniteSTEM Conference! We were truly impressed by your work and application, and we are confident that you'll make meaningful contributions to this conference as well as take back valuable insights. Our main goal for the conference is to provide you exciting information about hands-on learning methods and hackathons, as well as the tools and resources to implement them. The remainder of this packet is full of information intended to give you a better idea of what to expect on April 21st in New York City, and to provide some insight into how to make the most of the conference. If you have any questions not covered in this packet, please don't hesitate to reach out to Peter, our Head Marketer at xi@princeton.edu.

By coming to IgniteSTEM you are joining a community that will work with you to improve the lives of your students. You are the IgniteSTEM Cohort 2016. Again, congratulations on your acceptance to the conference! We look forward to meeting you all very soon!

Sincerely,

The IgniteSTEM Team

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Travel Information

KEY LOCATIONS:

HOTEL:

Aloft Harlem Hotel
2296 Frederick Douglass Boulevard, New York, NY

CONFERENCE VENUE:

Schapiro Center, Columbia University
530 W 120th St, New York, NY

AFTERPARTY:

Google NYC Headquarters
76 9th Ave, New York, NY

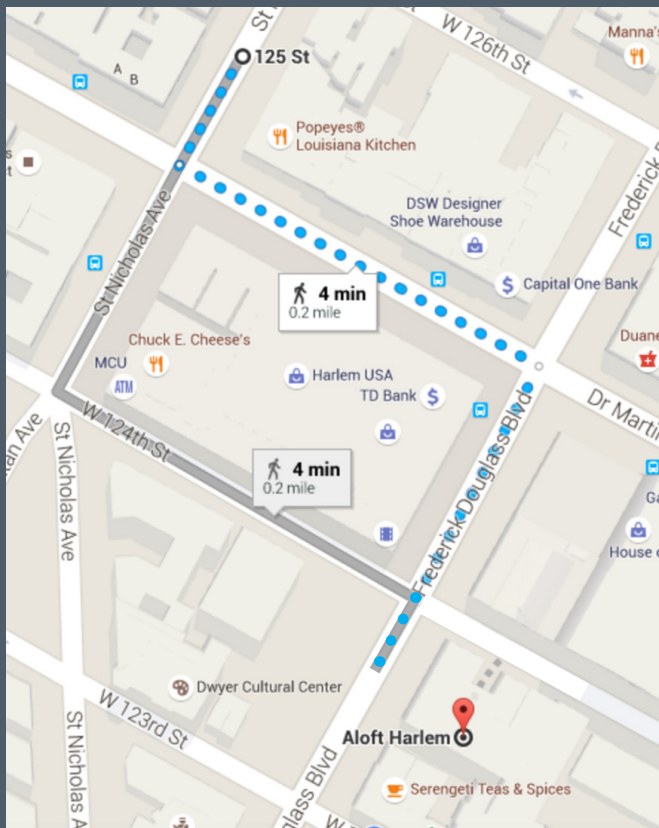
I. DIRECTIONS TO HOTEL

BY NJTRANSIT TO HOTEL:

Take the Northeast Corridor train to New York Penn Station (last stop) -- \$10-20
Follow directions by metro below

BY METRO TO HOTEL:

Take subway line A, B, C, or D to 125th St Station -- \$2.75
Walk east on 125th St / Dr Martin Luther King Jr Blvd past Dunkin Donuts (1 block)
Turn right and walk south on Frederick Douglass Blvd (1.5 blocks)
Aloft Harlem Hotel will be on the left (entrance surrounded by two flags)



BY CAR TO HOTEL:

Parking available on street or at FDB garage (one block south on Frederick Douglass Blvd) -- ~\$15

II. DIRECTIONS TO CONFERENCE VENUE

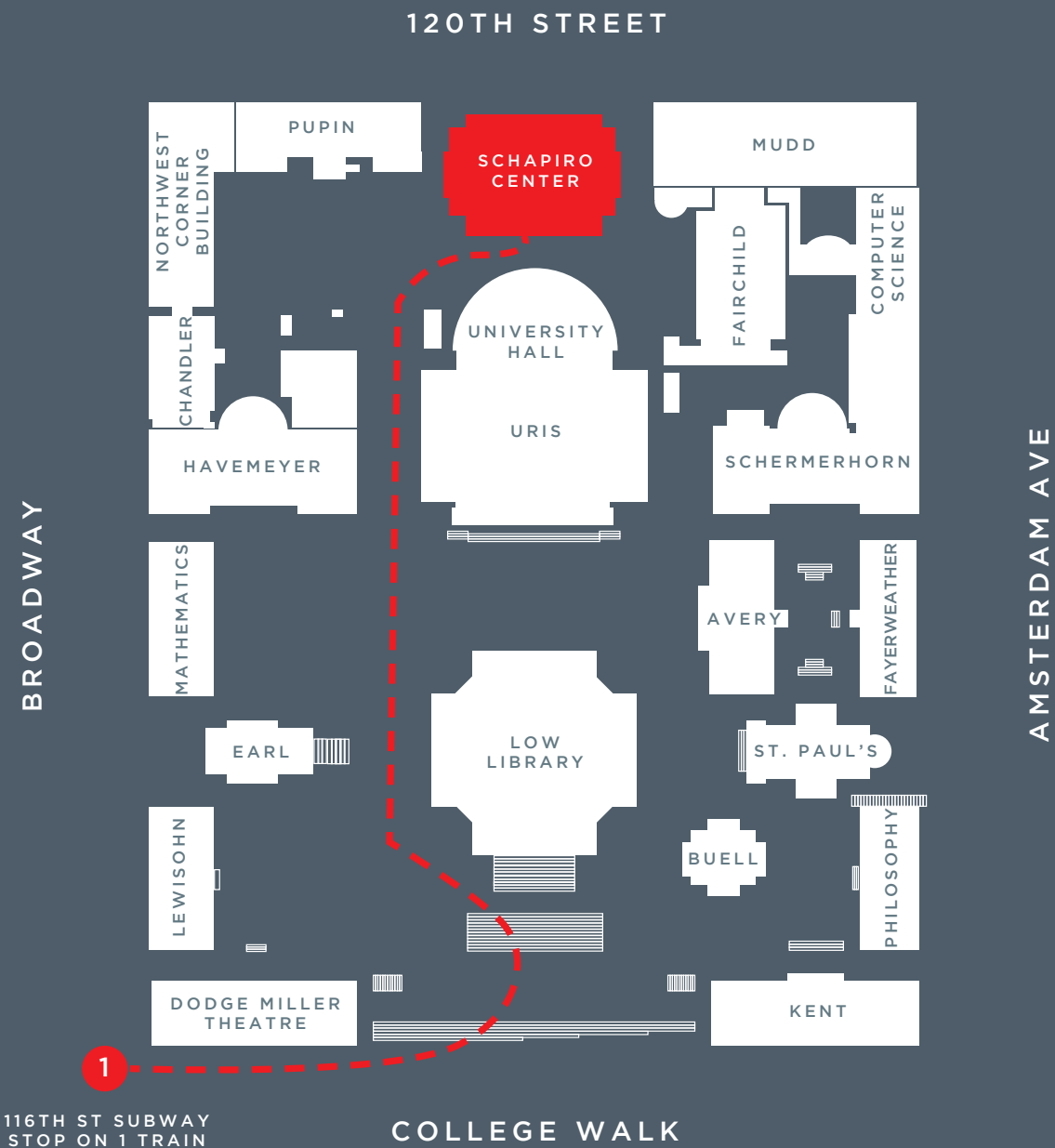
BY NJTRANSIT TO VENUE:

Take the Northeast Corridor train to New York Penn Station (last stop) -- ~\$10-20
Follow directions by metro below

BY METRO TO VENUE:

Take subway line 1 to 116th St (Columbia University) station (this will be Uptown if you're coming from Penn Station)

From the campus entrance, walk in along College Walk, head north up the steps, go around Low Library and to the back of Uris Hall (the Business School) to reach Schapiro Center



BY CAR:

You may park on the street or use the local parking garages. The 512-520 Garage is located at the corner of 112th Street and Amsterdam; the Riverside Church Parking Garage is located on 120th Street between Claremont Avenue and Riverside Drive -- ~\$25

WALKING (FROM ALOFT HARLEM HOTEL):

Head northwest on W 124th St toward Frederick Douglass Blvd (0.2 mi)

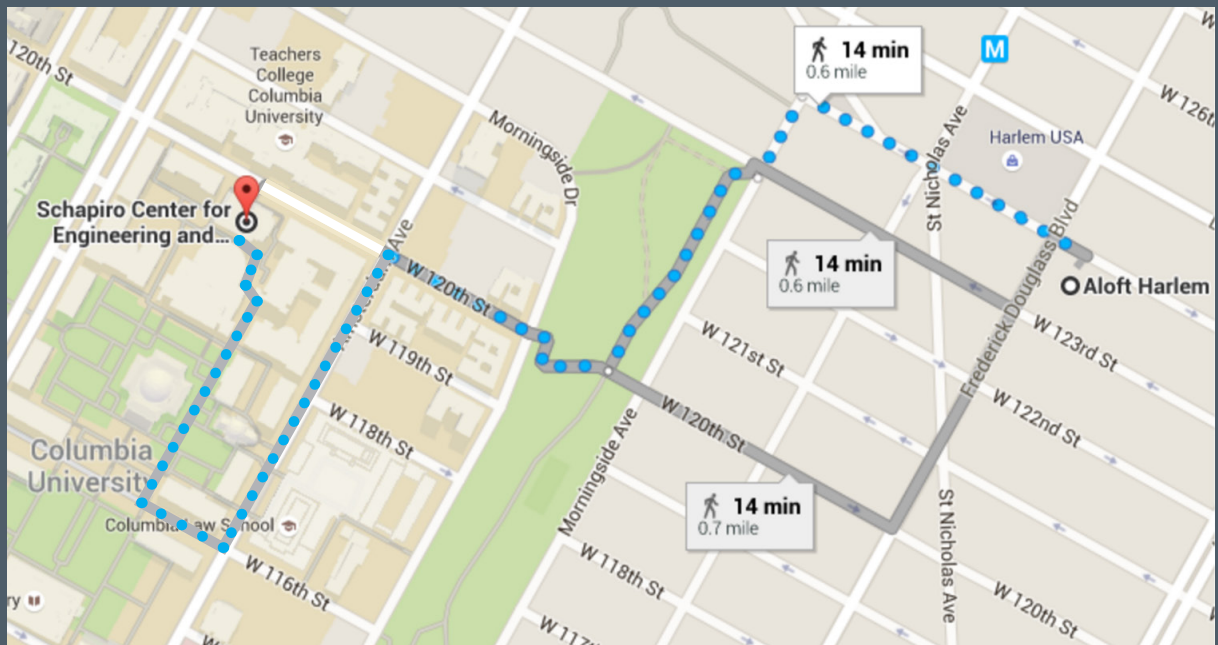
Turn left onto Morningside Ave (289 ft)

Turn right toward W 120th St (0.2 mi)

Turn right onto W 120th St (Schapiro Center on left)

Turn left on Amsterdam Ave and walk until 116th St Columbia University entrance

From the campus entrance, walk in along College Walk, head north up the steps, go around Low Library and to the back of Uris Hall (the Business School) to reach Schapiro Center



III. DIRECTIONS TO AFTERPARTY (FROM CONFERENCE VENUE):

BY METRO:

Take subway line 1 from 116th St (Columbia University) station to 14th St Station -- \$2.75

Head northeast on 7th Ave toward W 15th St

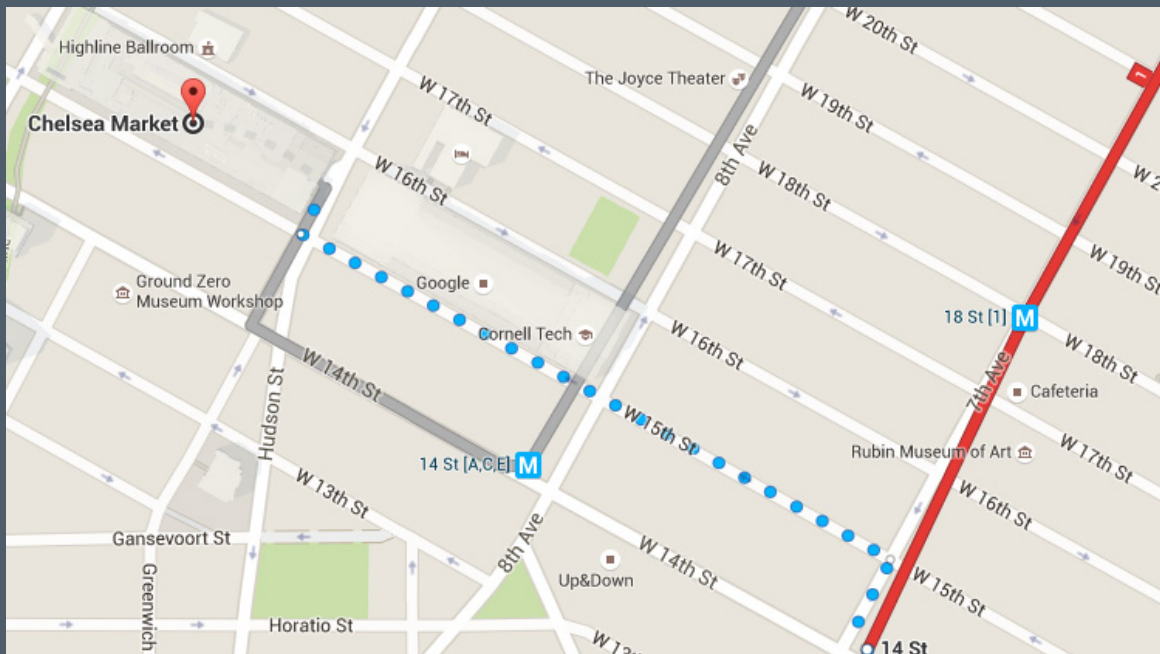
Turn left onto W 15th St

Turn right onto 9th Ave

Use the entrance to Chelsea Market at 75 9th Avenue (between 15th and 16th Street) (this is the building OPPOSITE the Google sign)

Once you enter the building, there are elevators across from Anthropologie -- take either up to the second floor

A registration table will be set up



BY CAR:

Street parking or \$30 flat validated rate in parking garage under Google is available

Check-In Information

Check-In and breakfast will run from **8:00 am - 8:30 am**. Greeters wearing white or gray IgniteSTEM shirts will be outside to welcome you and answer any questions you have throughout the day. Please be on time for check-in, as we will be distributing further information, a comprehensive **schedule of events**, as well as **professional development certificates**. Because of a limit on the number of people able to attend the after party, only the **first 75** to arrive in the morning will be guaranteed immediate admission to the **after party**. The rest will need to wait until others leave.



Schedule

APRIL 21, 2016

8 - 8:30AM	Registration, Breakfast & Networking
8:30 - 9:30AM	Opening Keynote Address
9:30 - 10:30AM	Un-Conference Session
10:30 - 11:15AM	Lightning Talks
11:15 - 11:45AM	Keynote Address 2
11:45 - 12:15PM	Speaker Office Hours
12:15 - 12:45PM	Lunch
12:45 - 2:15PM	Design Thinking Workshop
2:15 - 2:45PM	Keynote Address 3
2:45 - 3:45PM	Maker Space Experience
3:45 - 4PM	Break
4 - 5PM	Rube Goldberg Machine Workshop
5 - 5:15PM	Hack-In-A-Box and Concluding Remarks
5:15 - 5:45PM	Speaker Office Hours
5:45 - 6PM	Transportation to after party
6 - 9PM	After Party

What to expect at IgniteSTEM

I. KEYNOTE SPEAKERS

STEPHEN WOLFRAM | Founder & CEO of Wolfram Research

Stephen Wolfram is the Founder & CEO of Wolfram Research, Creator of Mathematica, Wolfram|Alpha, & the Wolfram Language, and Author of A New Kind of Science and Elementary Introduction to the Wolfram Language.

DALE DOUGHERTY | Founder of Maker Movement

Dale Dougherty is the founder and CEO of Maker Media, which produces Make Magazine and Maker Faire. MAKE has been the catalyst for a world-wide Maker Movement that is transforming innovation in industry, hands-on learning in education and the lives of makers of all ages.

MIKE SWIFT | Founder of MLH

Mike Swift is the co-founder and CEO of Major League Hacking (MLH), the world's official student hackathon league, which supports over 65,000 student hackers around the world each year. He previously founded Hacker League (acquired by Intel in 2013) and was formerly a developer evangelist for SendGrid.

SHAWN JORDAN | ASU Professor & Founder STEAM Labs

Shawn Jordan co-developed the STEAM Labs™ program to engage middle and high school students in learning science, technology, engineering, arts, and math concepts through designing and building chain reaction machines. He also led teams to two collegiate National Rube Goldberg Machine Contest championships.

II. UN-CONFERENCE SESSIONS

30 minute talks by **EdTech veterans** on their particular fields of expertise. If you have not already please list your **Un-Conference preferences** at ignitestem.typeform.com/to/NREAgx

III. LIGHTNING TALKS

5 minute talks from **inspiring students** who are innovating in hands-on learning

IV. DESIGN THINKING WORKSHOP

Design Thinking is a **structured, team-based approach to innovation** that actively teaches students to **identify people's needs** and **leverage the numerous technological resources** available to create innovative solutions to these needs, using a thought process of: **inspiration ► ideation ► implementation**. Through a combined effort led by **IDEO** and researchers at **Stanford University**, an active global network of schools have incorporated design thinking techniques or workshops into their day-to-day activities and have found their students to be more adept problem solvers and innovators. Our workshop will create an environment in which you will work with fellow attendees to develop a keen sense of what design thinking is and the impact that it can have as well as a visualization of what **implementing design thinking in your schools** would look like.

V. MAKERSPACE STATIONS

You and your group will cycle through our stations (geared for beginners) over the course of an hour and get a flavor for **how makerspaces feel and what they can do for your students**. These stations are sure to make you feel like a kid again!

HIGHLIGHTS INCLUDE:

ROBOTICS CODING WITH SCRATCH & MBOT

Kids learn fun-damental hardware and software design by building an Arduino micro-controller-powered mBot robot system and coding it in MIT's Scratch language, a drag-and-drop, color-coded programming editor. See how exciting this hands-on introduction to coding, robotics, and physical computing can be!



LEGO MINDSTORM ROBOTICS

Using the LEGO Mindstorms EV3 Robot system, just like the engineers at MIT's Media Lab, we'll build Mindstorms robots that function in real environments and act as prototypes for innovation, from sustainable energy transportation systems, to store check outs to industrial manufacturing. Young engineers will program touch sensors, color sensors, gyroscopic sensors, ultrasonic sensors, and the motors that power them.



OCULUS RIFT VIRTUALITY HEADSET

The Oculus Rift is a virtual reality head-mounted display that allows kids to experience virtual worlds and interact with them. We use this VR wonder to explore the games and apps we've created in the makerspace--step into another dimension with the Rift!



VI. RUBE GOLDBERG MACHINE WORKSHOP

Shawn Jordan, ASU professor, founder of STEAM labs, and a championship-winning Rube Goldberg Machine mentor will be hosting a workshop on these **timeless contraptions** that complete simple tasks in educational and technically complex fashions. And yes, you'll get to **build one too!**

VII. RECEIVE YOUR CUSTOM HACK-IN-A-BOX

This conference is simply a seed to ignite your journey towards **disrupting traditional educational models**. We deeply want you to create hands on learning activities in your schools so we have curated an incredible resource for your use called **Hack-In-A-Box**. Hack-In-A-Box is both a **physical box** of resources and an **online portal** enabling you to host a future hackathon that best fits your community. The take-home "Hack-In-A-Box" - a simple Do-It-Yourself kit, is a symbolic representation of items necessary to host your very own hackathon. The booklet included is a general overview on getting started, and a perfect segway to the in-depth website—which has everything you could possibly need to know. Also included in the physical box are inserts from our partners that will be helpful to you when running your first hackathon. These are tools, not ads!

VIII. AFTERPARTY

An afterparty will be hosted at **Google's NYC headquarters** from **6 to 9pm** and have free drinks and appetizers. If you would like to drink at the after party, you will need to bring your drink passes. These will be provided inside your Hack-In-A-Box.

Post Conference Steps

IgniteSTEM conference is just the beginning. As part of our 2016 cohort you are entitled to a variety of resources and partnerships that we have cultivated just for you.

I. HACKER FUND

We will equip participants with many tools to maintain a long-term relationship, to provide as much support as is needed, and to see their ideas and endeavors come to fruition. In addition to a support team, participants will be provided with a team member from High School Hackathon provider Hacker Fund to work with you to create your first school hackathon. Visit now at <https://hacker.fund/>.

II. HACKATHON GURU PROGRAM

With generous funding from Google's IgniteCS program we have create a Hackathon Guru program where you and the Hacker Fund team member you're working with can **apply for funding for your hackathon**. The Guru program offers monetary and logistical support to principals who work diligently with their Hacker Fund mentor to successfully put on a hackathon. We also provide prizes to schools who create hackathons such as "Best NJ Hackathon", "Best NY Hackathon", "First IgniteSTEM'd Hackathon" and "Greatest Team Hackathon (Hackathon with the greatest amount of schools collaborating)." To apply for this funding ask your Hacker Fund mentor or contact insuj@princeton.edu. This is a great way to get your first hackathon off the ground—with careful planning and effort, your hackathon should cost your school absolutely nothing.

III. HACK-IN-A-BOX

We've created an **all-purpose portal and knowledgebase** for everything you could possibly need to know about hackathon organizing! A perfect companion to your physical box, the online site goes far more in depth. Starting with a personalized survey, the content and info is adjusted to focus on the things relevant to your situation—get detailed guides on running a hackathon at a school of exactly your size, location, age group, budget, etc. This site will be **continually updated with fresh, accurate content and resources** for you to stay on top of putting together your first hackathon as easily as possible. To find the mystery link to this amazing resource simply look inside your physical Hack-In-A-Box.

IV. MAJOR LEAGUE HACKING

Major League Hacking (MLH) is the official **student hackathon league**. Each year, MLH works with more than 200 weekend-long invention competitions (hackathons) that inspire innovation, cultivate communities and teach computer science skills to more than **65,000 students globally**. At MLH powered Hackathons, students can expect to have access to the latest and greatest technology in a fun and safe learning environment. By spreading hackathons around the world, MLH has jumpstarted the student hacker movement and helped build the **largest community of student hackers**. MLH is a certified B Corporation whose mission is to empower hackers. View now at <https://mlh.io/about>.

V. HACKCLUB

One way to put on a hackathon is to **create a student group of hackers** who can plan these events. This is not something you have to do alone—nor should it be! The investment of the students themselves in the project can drive its success—as well as giving its organizers valuable planning and leadership experience. This is one of the kinds of projects college admissions looks for. Visit now at <https://hackclub.com/>.

Frequently Asked Questions

Q: WHAT SHOULD I WEAR TO THE CONFERENCE?

A: Attire is casual -- dress comfortably!

Q: SHOULD I BRING MY LAPTOP?

A: A laptop will not be needed; we will provide note-taking materials. But be sure to bring your phone to note valuable contacts whom you will meet throughout the day.

Q: ARE ATTENDEES RESPONSIBLE FOR ARRANGING THEIR OWN TRAVEL?

A: Yes. Attendees are responsible for arranging their own travel needs and arriving on time to the conference at 8am morning of April 21st, 2016. Detailed instructions for transportation are included in this packet.

Q: WHEN DO I CHECK INTO / OUT OF THE ALOFT HARLEM?

A: Check in is at 3 PM, and check out is at 12 PM.

Q: CAN I BRING A FRIEND OR GUEST TO THE CONFERENCE?

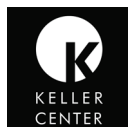
A: While we hope you will share your knowledge after the conference, space is extremely limited and you have been specifically selected for your talents to attend IgniteSTEM; additional spots are unfortunately not available.

Thank you to our Partners

The reason this conference is possible is because of our amazing partners who have supported us logistically and financially.



WOLFRAM



HACKERFUND



CITYBRIDGE
FOUNDATION



**MECHANICAL &
AEROSPACE
ENGINEERING**

Google IgniteCS

girls who
code

DEVPOST

