

# HACKATHONS:

A Guide for High School Administrators

**WHERE ARE THE TOP**  
**INNOVATORS**  
**DESIGNERS**  
**ENTREPRENEURS**  
**DEVELOPERS**  
**INFLUENCERS**  
**OF TOMORROW?**

THEY ARE AT

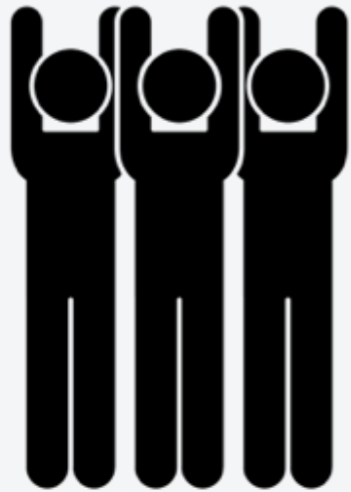
**HACKATHONS!**

# WHAT IS A HACKATHON?

# HACKATHON = INVENTION + MARATHON

The word hackathon is a portmanteau of the words hack and marathon, where hack is used in the sense of playful, exploratory programming, not its alternate meaning as a reference to computer crime.

— *Wikipedia*



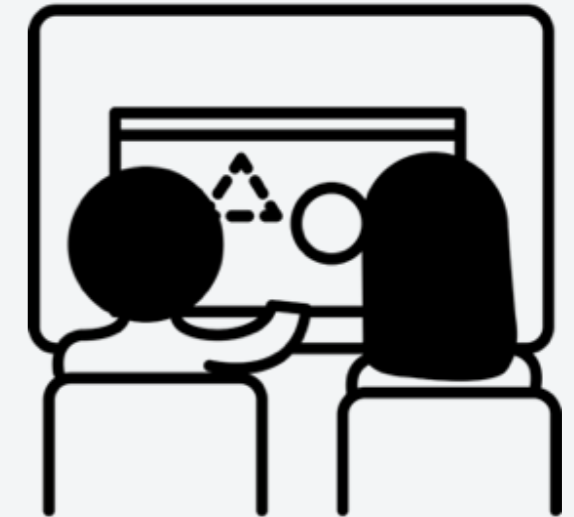
## FRIDAY

Students arrive by bus, train, and plane. They pitch ideas and form teams organically and get straight to work on bringing their ideas to life.



## SATURDAY

They spend the next 24-36 hours intensely focused on building and designing their hack projects. There are breaks for meals and fun mini-events.



## SUNDAY

Students demo projects science-fair style. The top hacks demo on stage in front of the audience and a panel of judges to determine a winner.

# SCIENCE-FAIR STYLE EXPOS



# EXPERT MENTORS



**WHAT DOES A  
HACKATHON LOOK LIKE?**



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RUTGERS



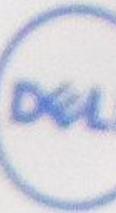




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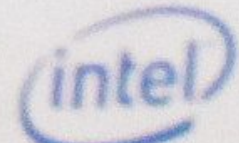
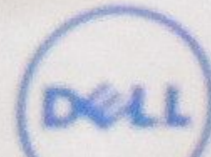
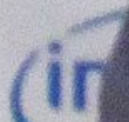


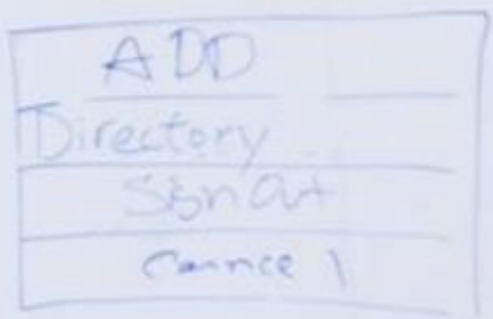
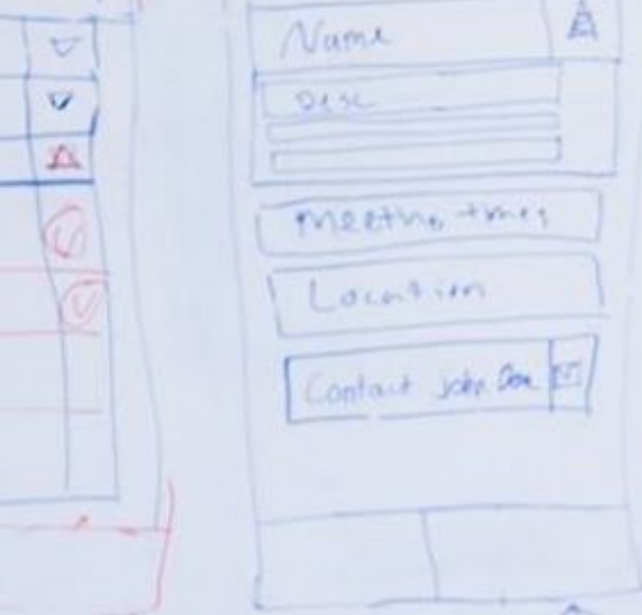
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# Code:

1. Create project input system
  - Name
  - description
  - location
  - contact
  - contact
2. Display in UITableView

Topics to  
 next  
 time  
 can  
 4. 30.

Byrdan  
 1) Detail view  
 2) Favorite

Michael  
 1) Login X  
 2) Logout



# HOW POPULAR ARE HACKATHONS?

**EXTREMELY**

and still growing

# THE SCHOOLS

Hackathons are hosted at the best technology schools in the world.

Here is just a small sampling of our host schools:



and many more...

# HIGH SCHOOLS



and a few more...



HACKATHONS IN **10** COUNTRIES

**50,000**

STUDENT PARTICIPANTS

**10,000+**

IDEAS BROUGHT TO LIFE

# THE SPONSORS

The world's top brands participate as sponsors at our hackathons.

Many sponsors send mentors and recruiters.



**WHY ARE HACKATHONS  
IMPORTANT FOR \_\_\_\_\_?**

# WHY ARE HACKATHONS IMPORTANT FOR ORGANIZERS?

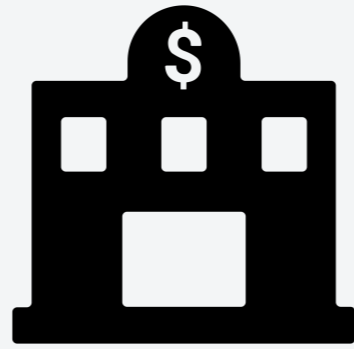


# SKILLS ORGANIZERS LEARN

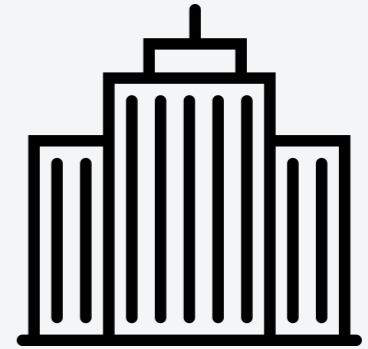
Student organizers gain experience planning a large scale event and collaborating with many stakeholders.



**MANAGING AND PARTICIPATING ON A TEAM**



**MANAGING FINANCES**



**INTERACTING WITH CORPORATIONS ON A PROFESSIONAL LEVEL**



**FUNDRAISING**





**EVENT PLANNING AND LOGISTICS**



**MARKETING**

# WHY ARE HACKATHONS IMPORTANT FOR HACKERS?

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# REAL WORLD EXPERIENCE

Students have a chance to work on **real** projects, using real technologies, that solve **real** problems. Hackathons help prepare students for their entrance into the workforce by introducing them the skills necessary for developers. In addition, the environment at hackathons is very similar to the work environment at many technology startups.



# NEW FRIENDS

When a room is filled with like-minded and highly motivated students working together to solve a problem for a weekend, it is inevitable for friendships to be formed. Students meet other students from around the world and many work together on projects after the hackathon.



# INDUSTRY CONNECTIONS

Students are given a chance to interact with representatives from the world's top brands. Sponsors send representatives and professional mentors to hackathons.

A photograph of students participating in a cup-stacking activity. In the foreground, a young man in a grey t-shirt and plaid shorts is kneeling on a wooden floor, carefully placing a blue cup onto a growing tower. To his right, another student is also focused on their tower. The towers are built from blue plastic cups, some of which have the 'DELL' logo. In the background, other people are visible, some wearing t-shirts with logos like 'UPIN' and 'JUST'. The scene is dimly lit, suggesting an indoor event at night.

# A FUN AND EDUCATIONAL WEEKEND

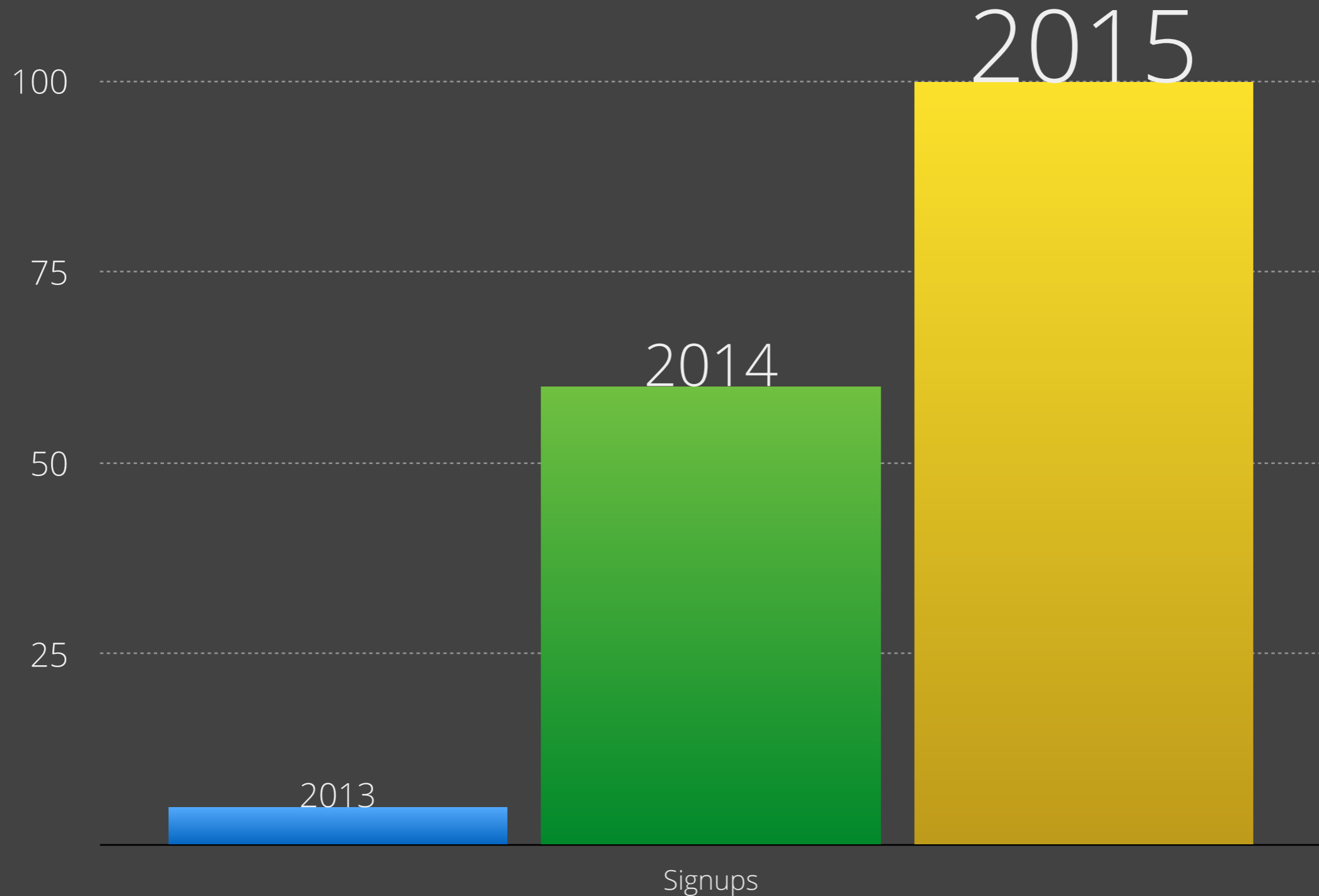
Students get to learn to program, eat for free, receive professional mentorship, and students are given the tools they need to build their dreams. All while having fun!

A photograph of two young men sitting at a desk in a computer lab. They are both smiling and giving thumbs up. The man on the left has blonde hair and glasses, wearing a brown sweater. The man on the right has brown hair and is wearing a dark blue hoodie over a red shirt. In front of them are two laptops. The laptop on the right has several stickers, including a YouTube logo, an MLH logo, and a character sticker. The background shows a computer monitor, a chair, and a door.

# MOTIVATION

What happens after the hackathon is just as important as the event itself. A hackathon leaves a student body invigorated and eager to spend their free time working together on projects. Not only do students attend more hackathons and win more prizes at them, students are more motivated to sacrifice their free time to learn more about computer science and work on projects with their peers.

# BERGEN COUNTY ACADEMIES STUDENTS WHO SIGNED UP FOR RUTGERS UNIVERSITY'S HACKATHON



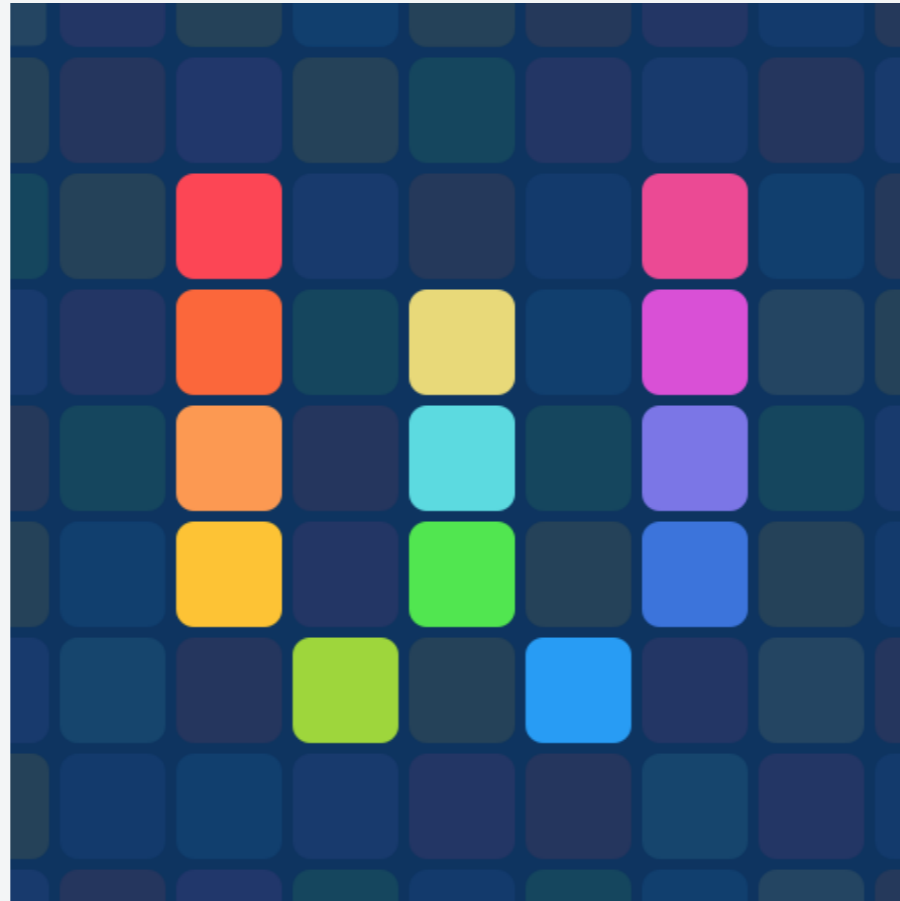
Since running our hackathon, interest in Computer Science has grown tremendously here at our school. We offered new coding classes over the summer and have added new Computer Science courses to meet the additional demand from our students. I believe hackathons are a great way to promote student interest in Computer Science.

— Mr. Russell Davis (Principal at the Bergen County Academies)

# PREPARATION FOR CAREERS

At hackathons, students learn skills directly needed for technical careers. Students have a chance to learn both technical and soft skills through the process of working on a team to build innovative new solutions to problems, often using new technologies.

**SOME PROJECTS GO ON  
TO DO GREAT THINGS...**



# WORKFLOW

Workflow went from an app built at the University of Michigan's hackathon, by a team of all high school students, to one of the top apps in the iOS app store. It has been covered by the Wall Street Journal and The Verge.



# COSMOS BROWSER

Cosmos Browser, an app allowing individuals in third-world countries to connect to the internet through text messages, was also built in 36 hours at the University of Michigan's hackathon by a mixture of high school and college students.

Cosmos has been extensively covered by news sites like FastCompany, Engadget, and The Smithsonian Magazine, and it has received funding as part of the 2015 batch in Techstars Startup Accelerator.

# **WHY ARE HACKATHONS IMPORTANT FOR SCHOOLS?**

# THE BEST WAY TO IMPROVE A SCHOOL'S CS PROGRAM

# **MEDIA ATTENTION**

Hackathons attract a lot of media attention (NYTimes, WSJ, LATimes), which benefits both students and schools. Students get to showcase their projects for a national audience, while schools gain prestige and advertise their cutting-edge programs.

# THE NEW YORK TIMES

EDUCATION LIFE

80 COMMENTS

## The Hackathon Fast Track, From Campus to Silicon Valley

By STEVEN LECKART APRIL 6, 2015



SLIDE SHOW | 7 Photos  
Coding, Caffeine and Naps

Peter DaSilva for The New York Times

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Shariq Hashme squints at his laptop screen as he scrolls through hundreds of lines of computer code. "I can't even make sense of it right now," he says with a grimace. The long string of numbers, symbols and letters would usually be intelligible to Mr. Hashme, a 21-year-old computer science major at the University of Maryland, College Park, but at this moment, he's having trouble even keeping his eyes open. In the last 27 hours, he has slept just two.

It's 2:37 a.m. on a Sunday, and he is toiling alongside 671 young software engineers who are camped out in and around a 6,000-square-foot

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TECH

### On Your Mark, Get Set, Hack!

By EMILY GLAZER  
September 13, 2011

During a "hackathon" last year, GroupMe co-founders Steve Martocci and Jared Hecht built a group text-messaging service in one 24-hour stretch. In August, the co-founders sold GroupMe to Skype for around \$80 million.

Hackathons, once an obscure corner of the computer-programming world, are becoming more mainstream. The contests, which bring together computer programmers for a few days to cook up applications on the fly, are being used by entrepreneurs as a launchpad for their start-ups. Companies and other organizations also see them as a fun and cheap tool to spur innovation.



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# THE LA TIMES

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## FROM THE ARCHIVES

UCLA stabbing brings back issue of college students' mental...

October 25, 2009

## LA Hacks hackathon draws hordes of young developers to UCLA [Updated]

April 13, 2014 | By Andrea Chang



The basketball court at UCLA's Pauley Pavilion was teeming with young hackers this weekend as students descended on the school for the second annual [LA Hacks](#) event.

More than 4,000 registered for the 36-hour hackathon, which drew developers from colleges including Stanford, UC Berkeley, USC, UC Davis and Harvard.

**[Updated at 9:15 p.m. Pacific time: Organizers said about 1,500 students showed up for the event.]**

### VIDEO: Unboxing the Amazon Fire TV

The event kicked off Friday night with a "mystery keynote" -- Snapchat co-founder and Chief Executive Evan Spiegel. During his address, Spiegel shared some words of wisdom on finding success.

"I was fortunate enough to have my palm read by a wise old man in a Hong Kong temple. In addition to learning that I will be married and have a son before I am 30, he also gave me the three keys to success," Spiegel said. "They are as follows: 1. Hard work. 2. Ability. 3. Human relationships."



College students pack onto the floor of UCLA's Pauley Pavilion for... (Andrea Chang / Los Angeles...)

## Instant Grammar Checker

[grammarly.com/Grammar\\_Checker](http://grammarly.com/Grammar_Checker)

# CORPORATE PARTNERSHIPS

As hackathons bring sponsoring companies onto their college campuses, more companies are introduced to that college. Computer science faculty get a chance to meet, interact with, and develop relationships with professionals at the cutting edge of technology. The fact that a school allows their students to run a hackathon shows that a school is devoted to staying on the forefront of technology education and empowering their students to lead the charge.

# FLATIRON SCHOOL + BERGEN COUNTY ACADEMIES

One of the title sponsors of BCA's hackathon was Flatiron School, a nearby startup that runs courses to teach both students and adults to program. Flatiron School was given a chance to visit the school, talk with students and faculty, and tour the computer science facilities. Not long after this hackathon, Flatiron School and BCA collaborated to launch a summer coding class at the school.

# ADMISSIONS

Hackathons are important from an admissions perspective. If allowed to participate, high school students attend many collegiate hackathons. Attending hackathons helps students get into their favorite colleges by providing the experience, awards, and knowledge necessary. In addition, high schools that host hackathons stand out as exemplary institutions that more middle school students will want to attend.



## THE UNIVERSITY OF MICHIGAN

Going to MHacks while in high school was a huge factor in me deciding to go to Michigan for the next four years. Seeing the energy and entrepreneurial spirit first-hand was more than any college tour could possibly demonstrate.

— *Michael Mattheakis (Class of 2018)*

2<sup>nd</sup>

University of Maryland, College  
Park  
355 Pts

1<sup>st</sup>

University of Illinois, Urbana-  
Champaign  
381 Pts

3<sup>rd</sup>

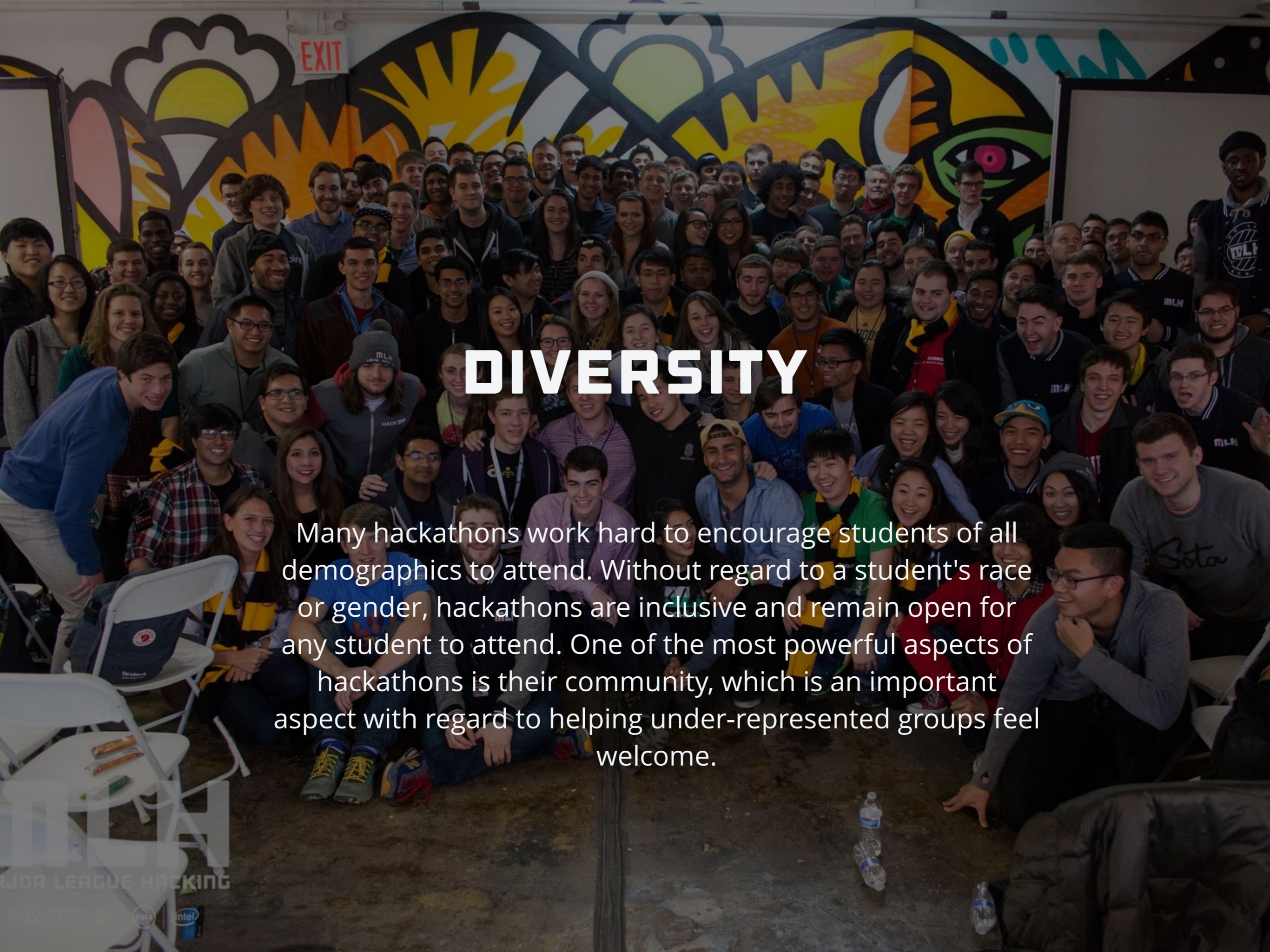
University of Michigan, Ann Arbor  
322 Pts

# MLH FALL 2014 SEASON RANKING

**WHY ARE HACKATHONS  
IMPORTANT FOR  
THE INDUSTRY?**

# PREPARING THE NEXT GENERATION

There are not nearly enough trained computer scientists to fulfill the need for programmers. According to Code.org, there will be 1,000,000 more computing jobs than computer science students by 2020. Computer science can be intimidating, and hackathons have done a great job of encouraging people to learn to code and enter the field.



# DIVERSITY

Many hackathons work hard to encourage students of all demographics to attend. Without regard to a student's race or gender, hackathons are inclusive and remain open for any student to attend. One of the most powerful aspects of hackathons is their community, which is an important aspect with regard to helping under-represented groups feel welcome.



...the recruitment and retention of women in engineering-related fields can be increased by providing opportunities to develop student-to-student relationships.

— Akl, Robert G., David Keathly, and Ryan Garlick. "Strategies for Retention and Recruitment of Women and Minorities in Computer Science and Engineering." *Innovations 2007: World Innovations in Engineering Education and Research* (2007).

**WHAT DO YOU NEED  
TO HOST A HACKATHON?**



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BOX 2

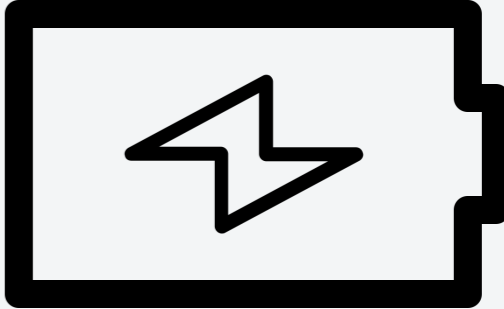
# THREE MAIN NECESSITIES



**FOOD**



**WIFI**



**POWER**

**BE SURE TO VERIFY  
THE VENUE WITH A  
FIRE MARSHALL**

**HOW LONG DOES IT TAKE  
TO PLAN A HACKATHON?**



**MOST HACKATHONS  
ARE PLANNED  
IN 4-6 MONTHS**

**HOW CAN ORGANIZERS  
ENSURE THAT HACKATHONS  
ARE SAFE FOR ATTENDEES?**



# REGISTRATION

While intricacies of the registration process vary per hackathon, all hackathons bar unregistered individuals from entering the venue. Hackathons also log when students enter the event and verify that students are who they claim to be by checking their identification. MLH encourages hackathons to collect all attendees' emergency contact information, including who to contact and how, in case of an emergency.

# CODE OF CONDUCT

To ensure that a safe, comfortable, and inclusive environment is promoted, MLH encourages all events to require students to agree to the Code of Conduct. This document illustrates the process for reporting violations and unsafe, harmful, or inappropriate behavior and fixing these problems as they arise. MLH has a no-tolerance policy for harassment and abuse.

A young man with brown hair, wearing a grey hoodie with a red and white graphic, is looking down at a white envelope he is holding. The background is blurred, showing other people in a crowd. The word "LIABILITY" is overlaid in large white letters on the left side of the image.

# LIABILITY

It is encouraged for organizers to work closely with school administrators to determine the most appropriate measures to take and ensure that the event is properly supervised. Organizers should also pay attention to liability issues that may arise. For this reason, most hackathons require students (and their legal guardian if necessary) to sign a liability waiver.

**WHO RUNS  
THESE HACKATHONS?**

# STUDENTS

Most MLH Events are run by student groups on campus. Students are tuned in to the needs of their peers and have the motivation to spend the time needed to plan an incredible event. However, students are not alone in their hackathon planning endeavors. MLH will help high school organizers by answering questions they may have, providing valuable advice, and connecting organizers to companies and vendors that they may need to work with.



# FACULTY

Organizers also work closely with school administrators and faculty members to ensure the success of their hackathon. Frequent communication between the student-organizers and a school's administration is critical.



# MAJOR LEAGUE HACKING

Run almost completely by individuals with prior experience organizing hackathons and attending hackathons as developer evangelists for sponsoring companies, MLH ensures that student organizers are given expert help to guarantee the success of their event. By facilitating a link between the technology industry and collegiate education, MLH is able to help students reach companies and individuals that would not normally be corporate partners of on-campus events.

# WHAT IS MAJOR LEAGUE HACKING?



**MAJOR LEAGUE HACKING**



**THE OFFICIAL STUDENT  
HACKATHON LEAGUE**

**POWERED BY**



# WELCOME TO THE FUTURE OF CS EDUCATION



# THANK YOU

Please contact [hi@mlh.io](mailto:hi@mlh.io) if you have any unanswered questions