

Nothing
to lose.

Everything
to gain.

TartanHacks

Hosted with <3 by ScottyLabs

2018

HOW-TOS

HOW-TO: Communicate

- Slack: You should have received an invite to the Slack channel during registration/check-in
- Email List: Watch for emails on the TartanHacks mailing list
- Facebook: Mark yourself as “going-to” TartanHacks and turn on notifications
- Snapchat: We have a TartanHacks filter!

HOW-TO: Get help

- Go to tartanhacks.com/help
- Fill out the form with your location and issue plus any relevant technologies and your Slack username
- A mentor will come to help you!
- Note: ScottyLabs organizers will be wearing a black ScottyLabs sweater

HOW-TO: Submit your hack

- Submit your hack at tartanhacks.com/submit
- Submissions are due at 4:30 PM tomorrow
- Keep an eye out for which expo (1 or 2) you're in after submission
- Presentations will be science-fair style: in-person demos to judges
- The winners will show off their hacks at the closing ceremony
 - We strongly recommend making a video
 - More polish and charm, fewer technical difficulties and less in-person awkwardness

HOW-TO: Make friends

- For those without teams, there will be a mixer right after the opening ceremony here in McEconomy
- Chat with like-minded individuals, share ideas, talk about relevant skills, and get inspired
- If your team is looking for more members, you are welcome to attend as well!

HOW-TO: Power up!

- WE HAVE LOTS OF POWER STRIPS
- Hold on to your wristbands! You'll need them to get food
- Keep an eye on the Slack channel, email list, or Facebook event for when we will be serving food or snacks
- Post in any of those with your location and we'll bring you snacks!

HOW-TO: Get info about CMU

- ScottyLabs maintains the following APIs:
 - Dining: CMU dining locations and hours
 - Directory: Contact info and directory lookup for students and faculty by name or AndrewID
 - Course: Course descriptions, FCEs, and schedules
- More info at scottylabs.org

HOW-TO: Report harassment

- TartanHacks is an all-inclusive, beginner friendly hackathon.
- We firmly believe that anybody can be a “real” hacker
- ZERO TOLERANCE for harassment, abuse, or discrimination
- If you’re feeling harassed, let a ScottyLabs organizer know. We will be happy to work with you to resolve the issue, possibly involving:
 - Mediation
 - Providing escorts — we want you to feel safe at TartanHacks
 - Removing the offending parties from the hackathon
 - Contacting university authorities or law enforcement
- This goes for *anybody*: other hackers, mentors, sponsors, judges, *anytime*: online or offline

Schedule

Day One: Friday

- 6:00 PM

- Hacking begins

Rangos

- Sponsor expo opens

Rangos

- Dinner

Rangos

- 12:00 AM

- Midnight snack

Rangos

Day Two: Saturday

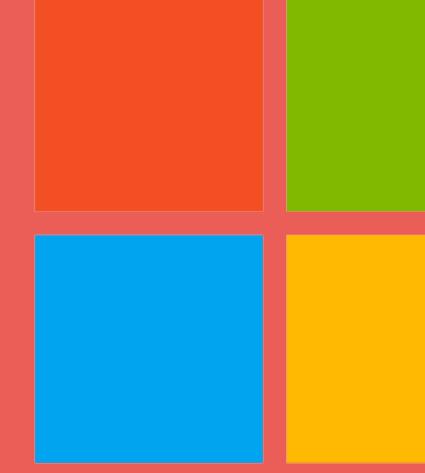
- 9:00 AM Breakfast Rangos
- 12:00 PM Lunch Rangos
- 4:30 PM Hacking ends, sponsor expo ends, dinner Rangos
- 5:15 PM Exhibition 1 starts Rangos
- 6:00 PM Exhibition 1 ends, Exhibition 2 setup Rangos
- 6:15 PM Exhibition 2 starts Rangos
- 7:00 PM Exhibition 2 ends Rangos
- 7:30 PM Closing ceremony McConomy

Hacker Spaces

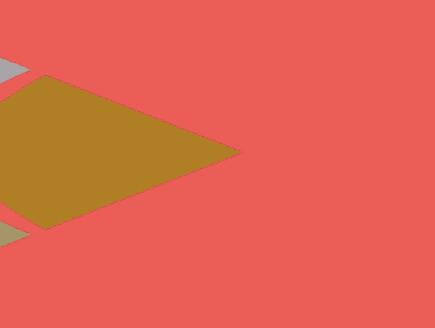
- UC Rangos 1 - 3
- UC Connan
- UC Pake
- UC Class of '87
- UC Caffee
- UC Dowd
- UC Danforth
- Of course, you can hack anywhere on campus — these are just rooms we've reserved in the UC

Prizes

Sponsors



Microsoft



BNY MELLON

facebook

CapitalOne

Google

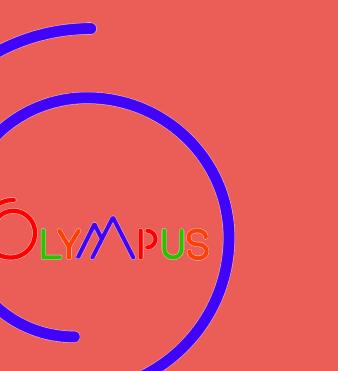
APT
A Mastercard Company

Rockwell
Automation

Bloomberg®



Sandia
National
Laboratories



First Penguin Award

- Randy Pausch's *The Last Lecture*:

"In a virtual reality course I taught, I encouraged students to attempt hard things and not worry about failing... 'The First Penguin Award' — to the team that took the biggest gamble while not meeting its goals...a prize for 'glorious failure.'

Experience is what you get when you don't get what you wanted. And it can be the most valuable thing you have to offer."

- Set your goals high — dream big and don't give up! Take risks, be brave, and be unafraid of failure!



Best Hack for Improving the Environment

- Sponsored by Rockwell Automation

**Rockwell
Automation**

Best Use of Data for Social Impact

- 4 headphones
- Sponsored by APT



Capital One

Best Financial Hack

How Will You Reimagine Banking?

\$250 Amazon Gift Cards To Each Member Of The Winning Team



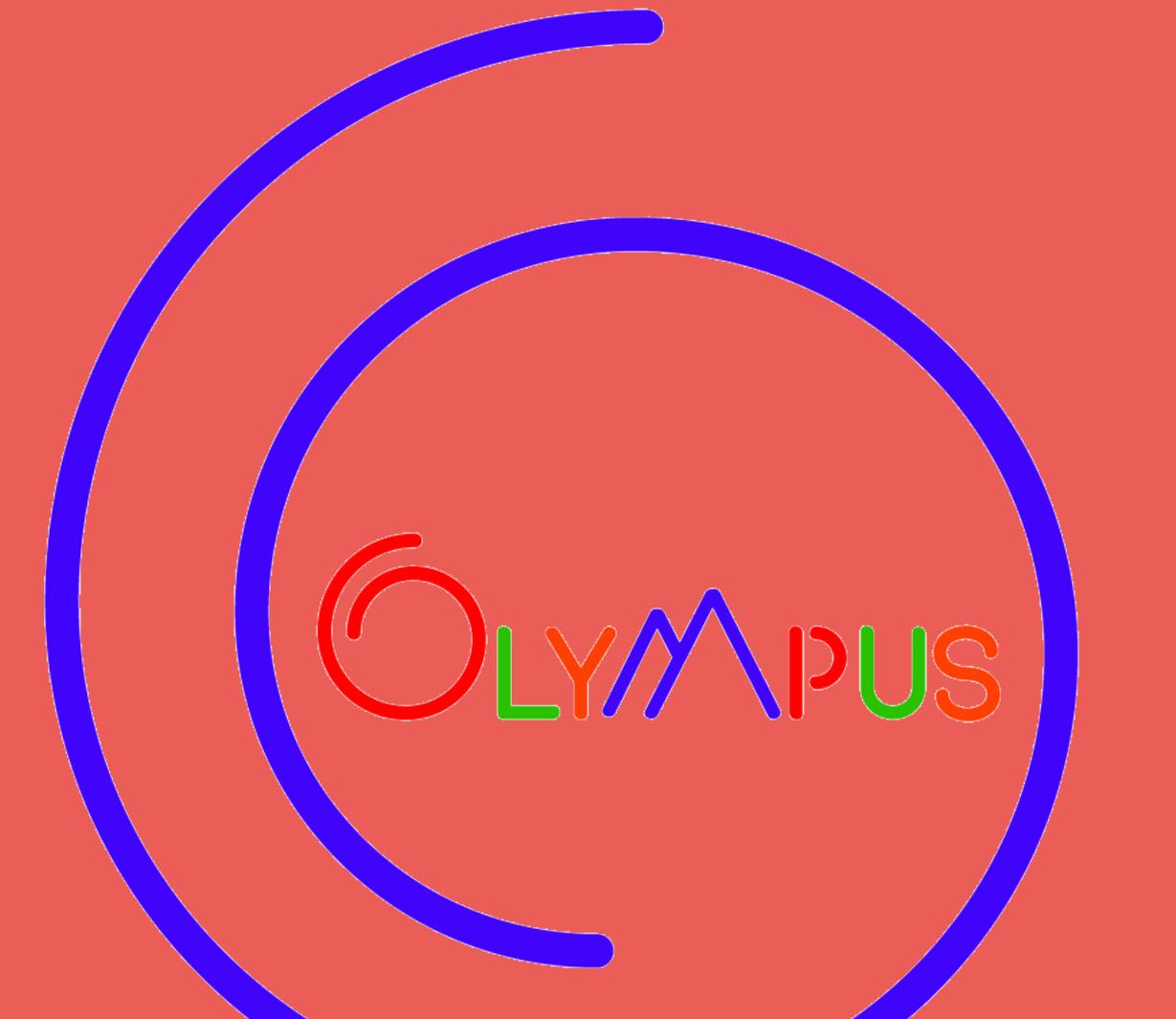
Best Use of Google Cloud Platform for Social Good

- Google Home Mini + Cardboard Viewer for each team member
- Sponsored by Google

Google

Most Entrepreneurially-Minded Team

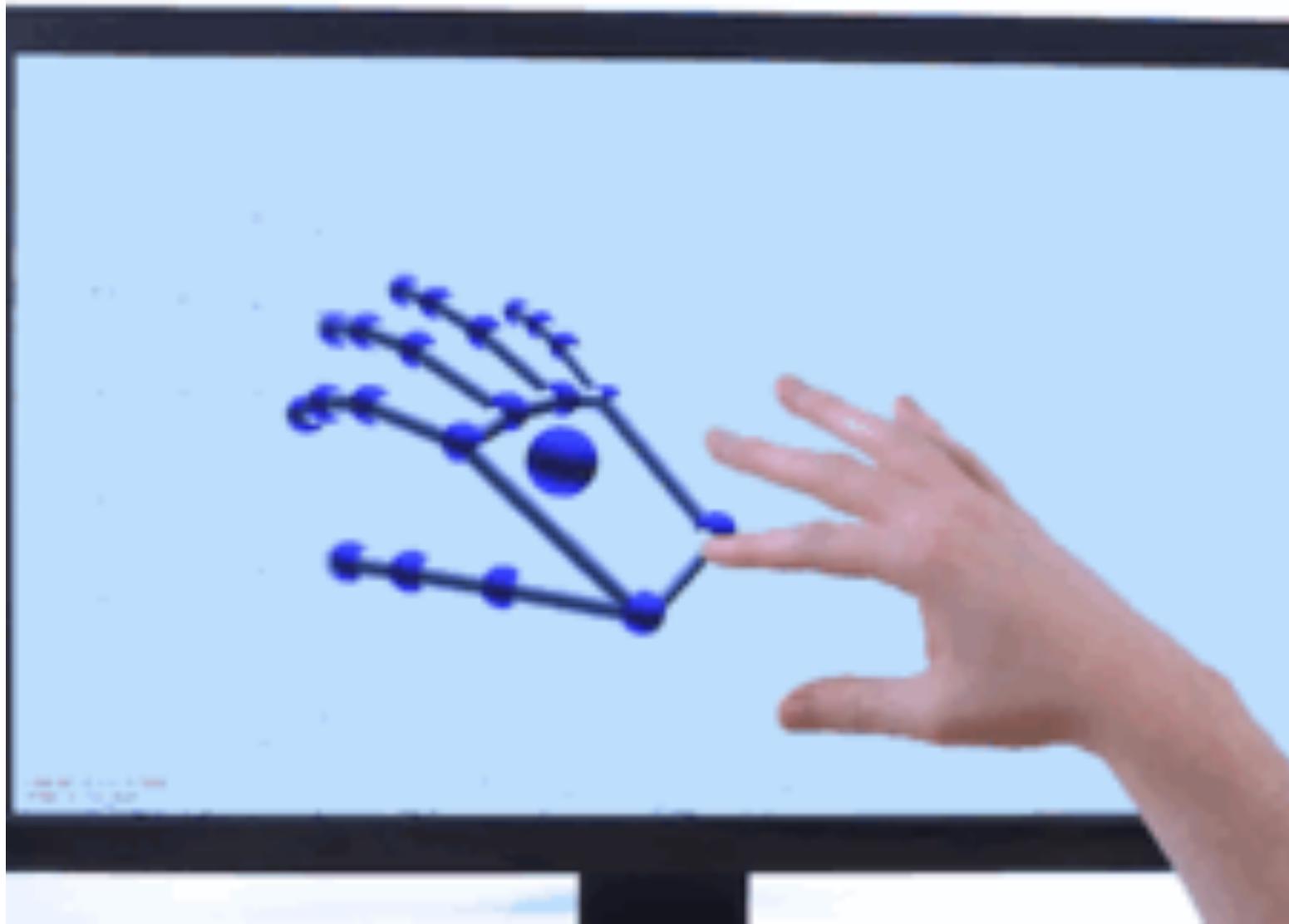
- 4 Leap Motion Controllers
- Sponsored by Project Olympus



- Most Entrepreneurial Prize -

{ Sponsored by CMU Project Olympus }

“CMU’s top secret startup incubator open
to all students, faculty and staff.”



Best Hack to Improve Public Health by Detection of Disease

- Sandia swag bags!
- Sponsored by Sandia National Laboratories



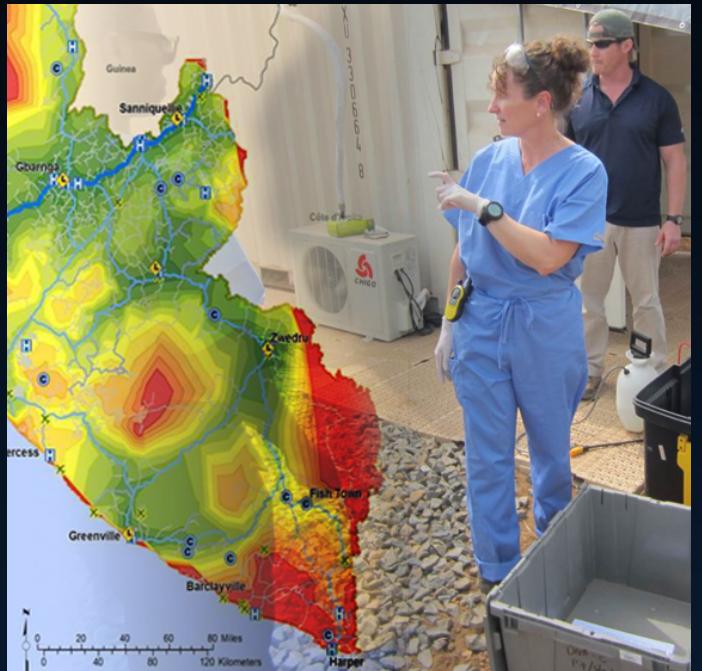
Sandia
National
Laboratories

Exceptional service in the national interest

Sandia National Laboratories



Sandia's Impact



Ebola Outbreak

Sandia contributes to global response of Ebola outbreak by developing a sample delivery system cutting the wait time and potentially fatal exposure.



Detecting IEDs

Combat personnel now have a new tool for uncovering improvised explosive devices: Sandia's highly modified miniature synthetic aperture radar system, which is being transferred to the U.S. Army.



Cleanroom invented 1963

\$50 billion worth of cleanrooms built worldwide. They're used in hospitals, laboratories and manufacturing plants today.



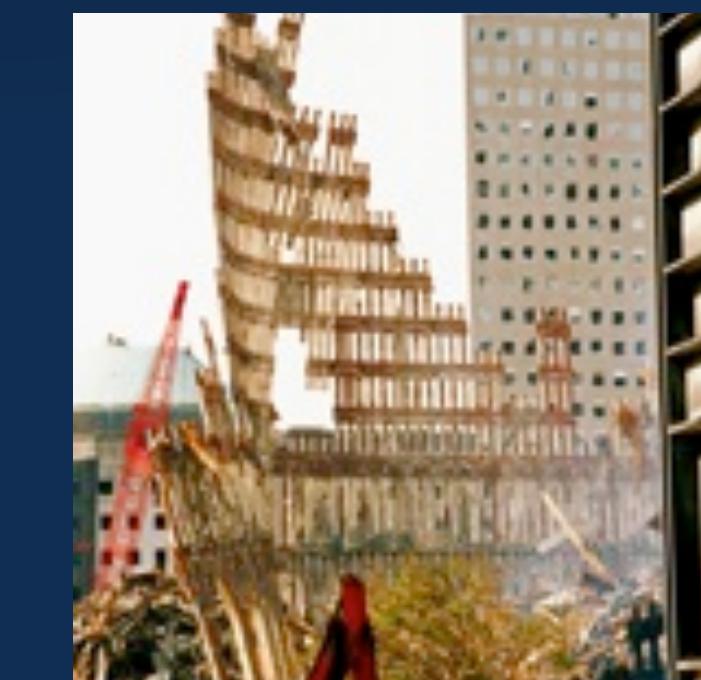
Hurricane Katrina

Sandia is called to assess flooding and infrastructure failures.



Fukushima Quake

Sandia helps clean up radioactive wastewater.



9/11

Sandia sets contingency plans for release of materials and aircraft attacks on critical facilities immediately after 9/11. Search dogs are equipped with cameras for search and rescue K-9 handlers. The capability allowed search efforts to be carried out in spaces inaccessible to humans.

Fulfilling Our National Security Mission



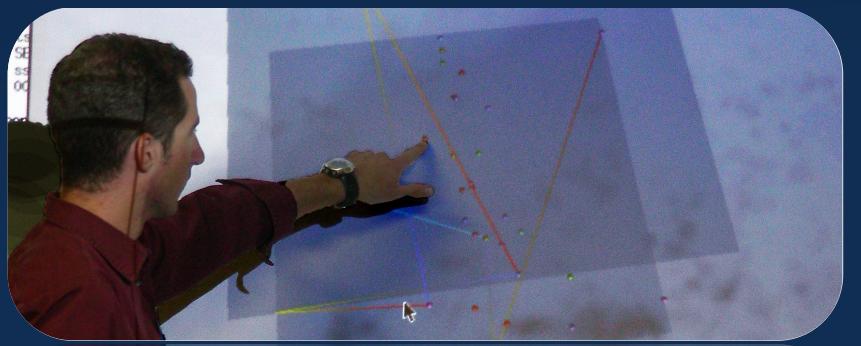
Nuclear Deterrence



National Security Programs

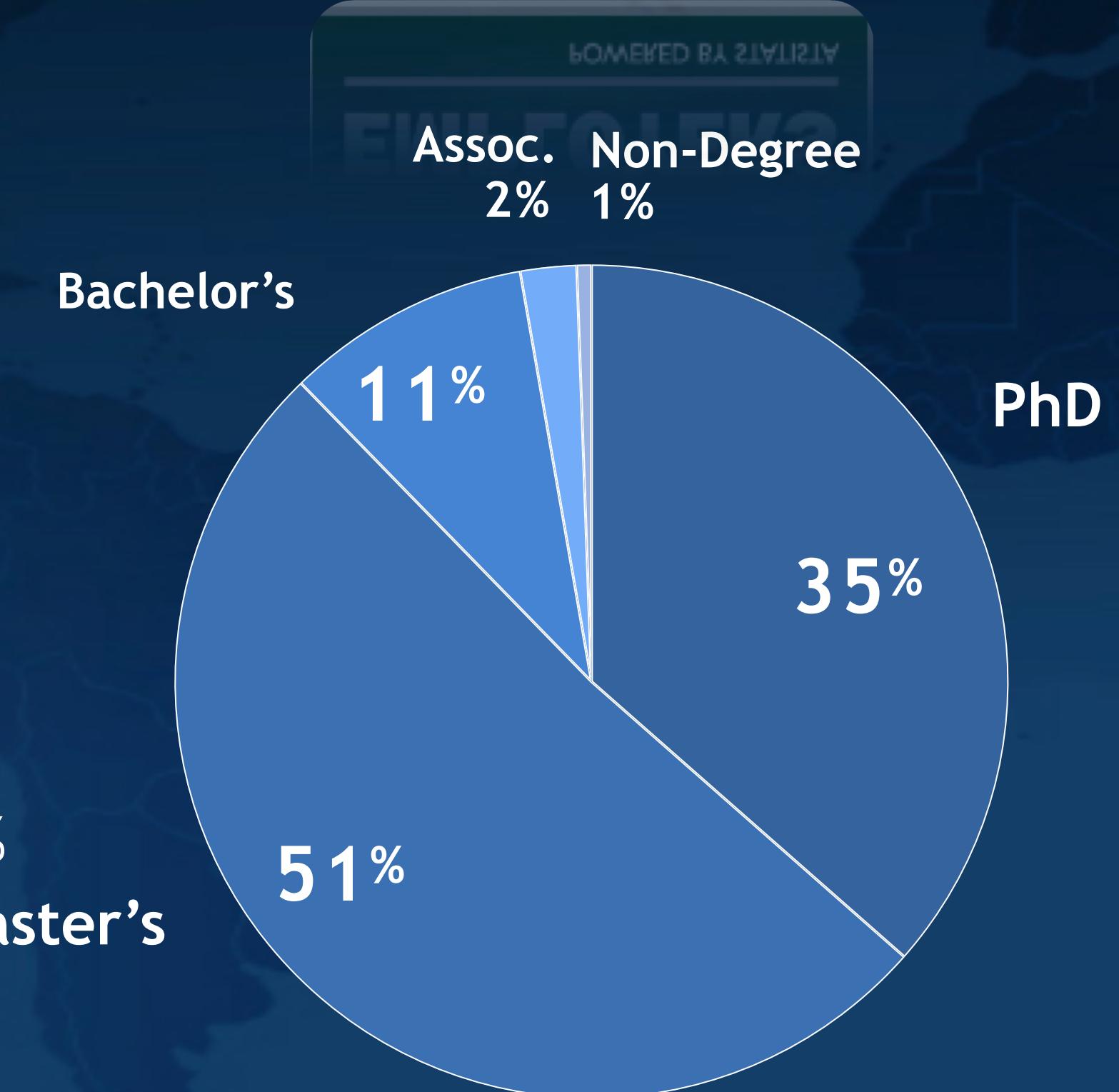
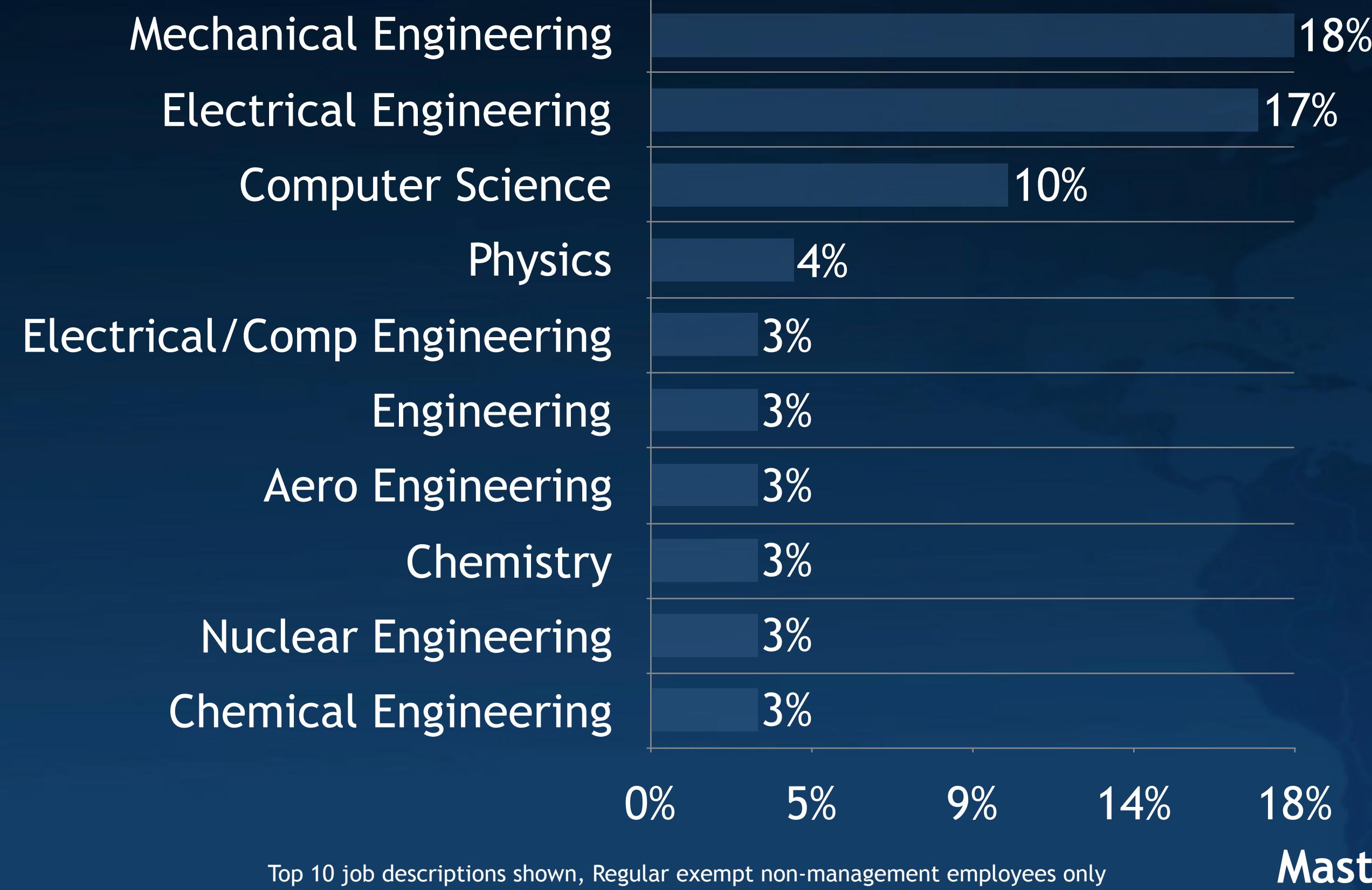


Energy & Homeland Security



Defense Nuclear Non-Proliferation

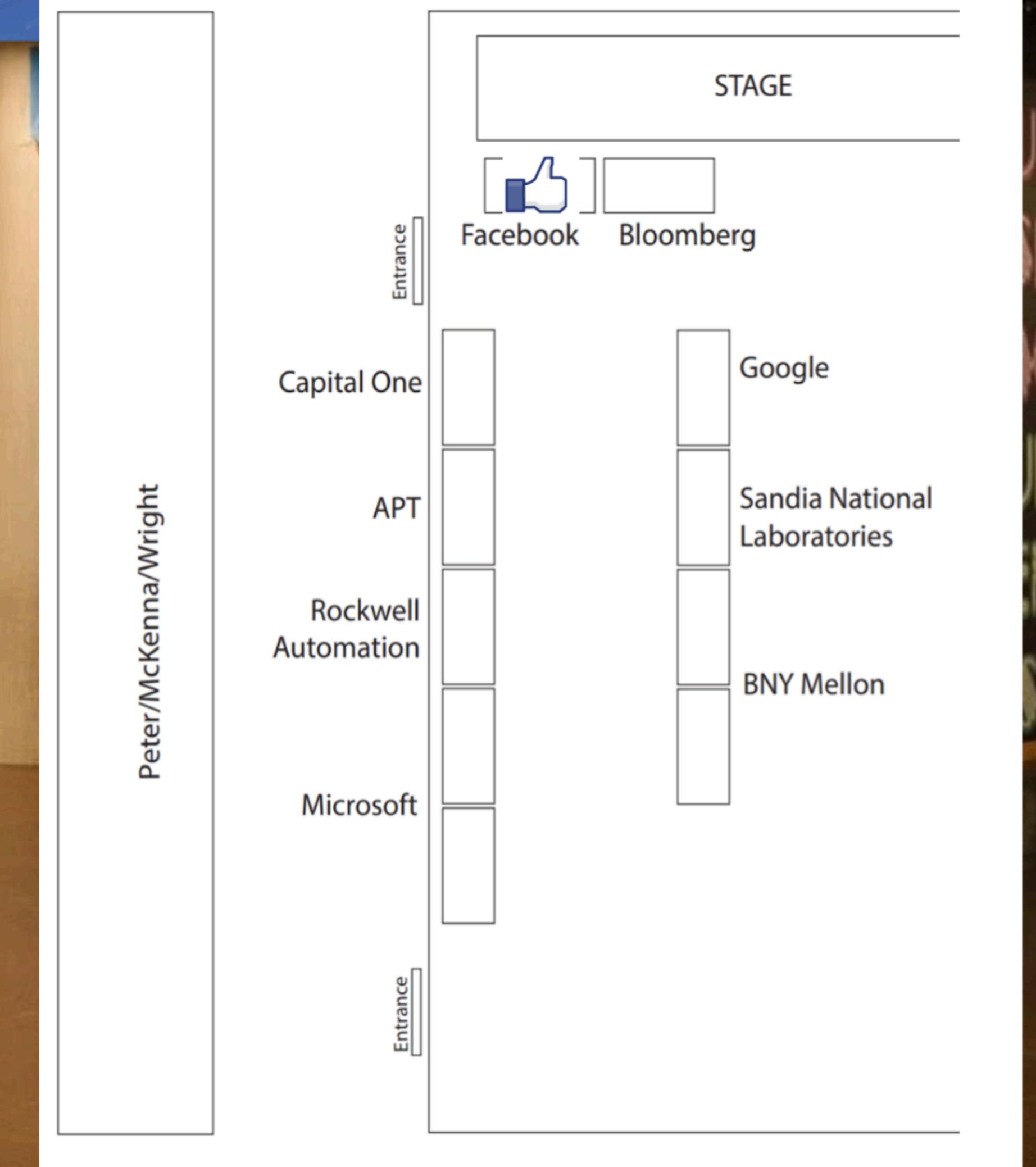
R&D by Discipline & Degree



Apply Online! sandia.gov/careers

Facebook @ TartanHacks

- ✓ Social Impact Prize
- ✓ Mentor Help around the clock
- ✓ Raffles
- ✓ SWAG
- ✓ Sweet Treats



Meet our Mentors



Dan



Bram



Jack



Rajesh



Gregory



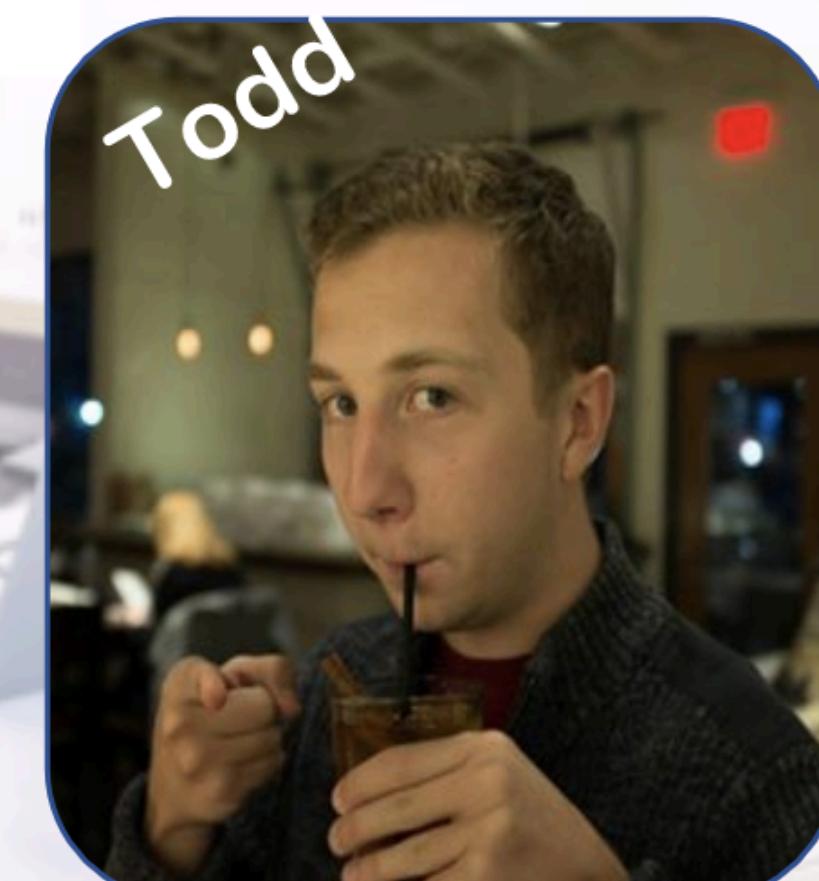
Chris



Nivedita



Tilak



Todd

Facebook Raffle

2 Ways to get tickets

- Stop by our booth to get submitted! You'll receive a ticket
 - Share or practice pitching your project to one of our mentors

Logistics

Raffle every 4-7 hours

Students will be notified via email if you've won (must provide an email or phone number that you'll have access to while at the TartanHacks)

Prizes must be collected before **6:00pm** Saturday – prizes will **not** be mailed

You can pick up your prize at our booth

Facebook TartanHack Prize: Social Impact

Prize Criteria:

Project should build social value AND focus on impact

If it can match our companies mission statement – even

better:

***“Give people the power to build community and bring
the world closer together.”***

Prize: All inclusive trip to compete in the
Facebook Global Hackathon

**Note last year the winners were from
TartanHacks!!!





BNY MELLON

2 Summer Analyst Program

SAP 2018: 5 Facts

- 10 Week Summer Experience
- Meaningful Work (App Dev, UX Design, Cloud, etc)
- Choice of business lines to explore financial Technology
- Networking and leadership development opportunities
- Long Term career prospects



Technology Leadership Program

TLP 2018: 5 Facts

- 14 Month Experience
- Professional Training and Executive Networking
- Choice of Two Rotations in different technical fields
- High level impact projects available
- Catalyzed career growth as Senior Associate



4

Sponsored Prize - Best FinTech Hack

Best FinTech

- One Amazon Echo per Team Member
- Hack must involve one of the following: Finance, Money (Crypto Included), or Global Markets
- BNY Mellon Tech Leaders to Judge Exhibitions



Best Microsoft hack



aka.ms/azurepasshack



aka.ms/kinectdev-center

Cognitive Services

aka.ms/cognitiveservices1

Bot Framework

dev.botframework.com



aka.ms/hololensdev-center



aka.ms/bingdev-center

Build on 1 or
more and win



up to 4
(1 per team
member)



Visit aka.ms/api.lib for a complete API list.



Windows

Microsoft Azure

Visual Studio

Office

More ▾

Docs.microsoft.com is the home for Microsoft technical documentation, API reference, code examples, quickstarts, and tutorials for developers and IT professionals. For more information and news, see [our blog](#). For more Microsoft documentation, visit [MSDN](#) or [TechNet](#).



.NET



System Center

Microsoft Azure

ASP.NET

SQL

Microsoft Education



Dynamics 365



Enterprise Mobility + Security

Bot Framework

Meet our Mentors



Amanda Lange
Technical Evangelist

IoT, Gaming, Mixed Reality,
Bots, Cognitive Services



Rachel Weil
Technical Evangelist

Node.js/JavaScript, IoT/
Hardware, Computer History,
Design, Machine Learning, Web,
Science, Gaming



Margaryta Ostapchuk
Technical Evangelist

Bots, AI, Cognitive Services, Azure
Search, ACI, Node.js/JavaScript, Web,
CosmosDB, WMR, Machine Learning

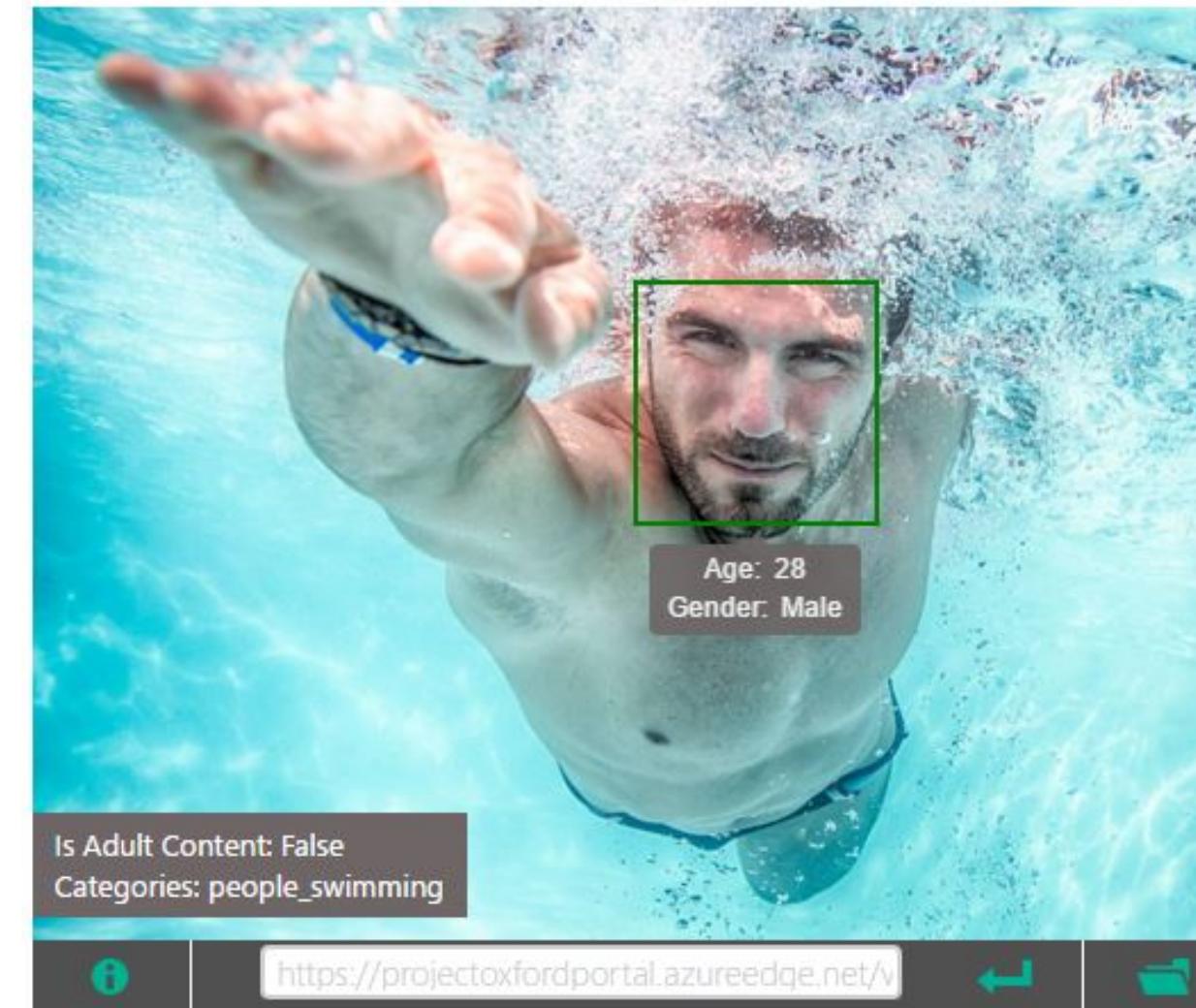


Clemens Wolff
Software Development Engineer

Python, Java, Bash, TypeScript,
JavaScript, React, ML/AI, NLP, Scikit
Learn, Cognitive Services, Docker,
Azure, Linux

Why Microsoft Cognitive Services?

- Many APIs that address common ML scenarios.
- An in-browser visual console lets you easily test APIs before you sign up.
- Web APIs = cross-platform!
- Most APIs have a generous free tier.



Features:	
Feature Name	Value
Description	{ "type": 0, "captions": [] }
Tags	[{ "name": "water", "confidence": 0.9996442794799805 }, { "name": "sport", "confidence": 0.9504992365837097 }, { "name": "swimming", "confidence": 0.9062818288803101, "hint": "sport" }, { "name": "pool", "confidence": 0.8787588477134705 }, { "name": "water sport", "confidence": 0.631849467754364, "hint": "sport" }]
Image Format	jpeg
Image Dimensions	1500 x 1155
Clip Art Type	0 Non-clipart
Line Drawing Type	0 Non-LineDrawing
Black & White Image	False
Is Adult Content	False

Microsoft Cognitive Services

- Image classification
- Facial recognition
- Emotion detection
- Route logistics
- Translation
- Speech to text
- Text to speech
- Video analytics
- Voice recognition
- Sentiment analytics
- Topic detection
- Recommendation engine
- News search
- Image search
- Video search
- Content moderation
- Spell check
- ...and more! (Really!)

ScottyLabs Grand Prize

- \$2000 for the winning team
- Judged on originality, technical difficulty & risks taken, personal growth & learning, good design, polish & charm, and overall impressiveness
- First time hackers taken into consideration!

Where to go now

- Get dinner **Rangos**
- Check out the sponsor expo **Rangos**
- Get hacking! **UC Rangos 1 - 3** **UC Class of '87**
UC Connan
UC Pake
- Slides will be on the TartanHacks website
● tartanhacks.com **UC Caffee**
UC Dowd
UC Danforth

