



HACK THE 6IX 2019

PRESENTED BY [intact]
INSURANCE

\$30,000

in main and challenge prizes ✨

1,000 applicants

amongst which we picked ...

400 hackers

which includes **YOU!**

36 hours

with ...

18 sponsors

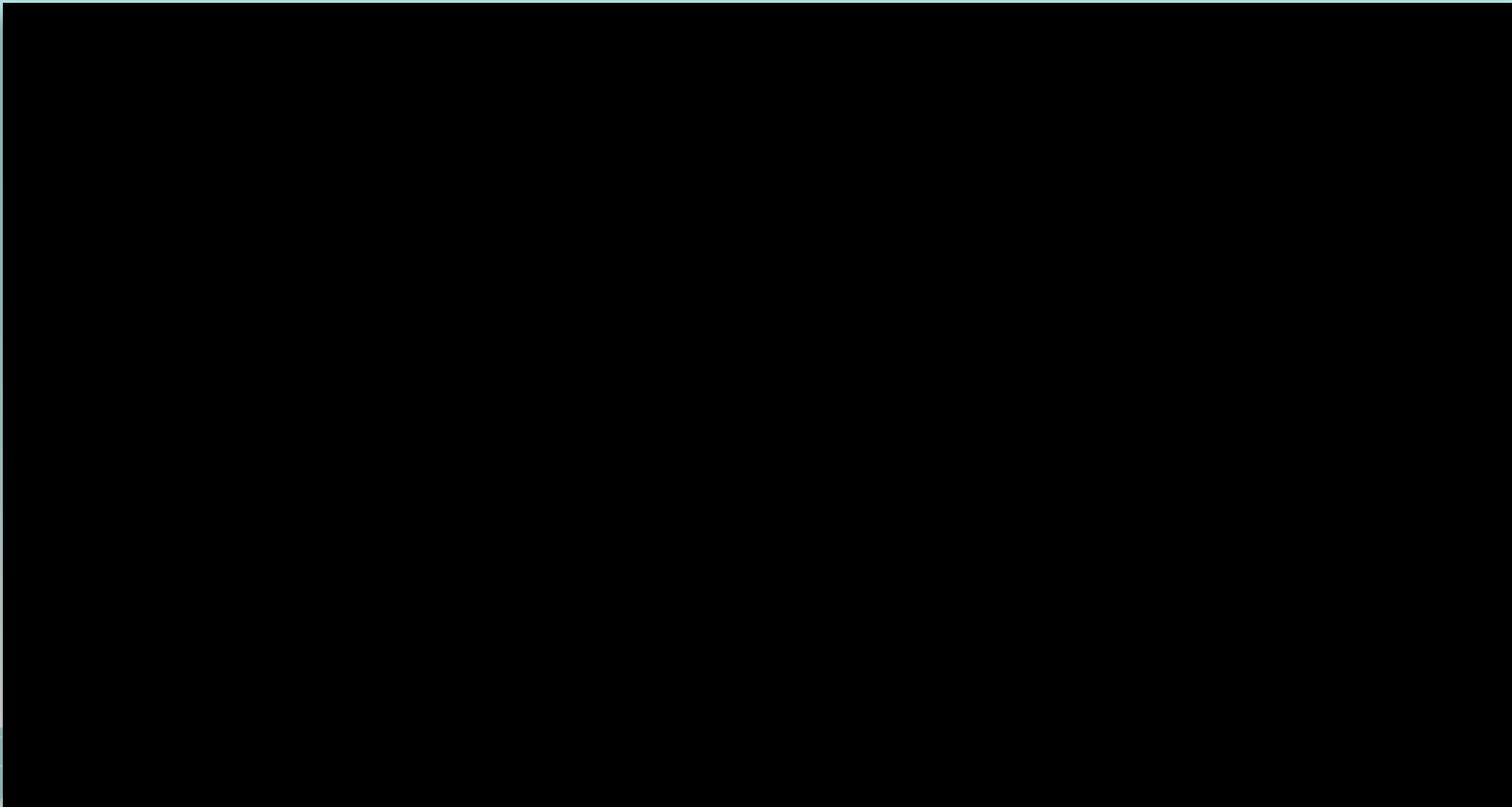
to meet,

8 workshops

to attend, and...

1 unforgettable event





Just remember ...

Atrium West

Food

Keep an eye on **#noms** on Slack! 🍔

BA 1230, 1240

Workshops

None are overlapping, so you can go to **all of them!** 🎉

BA 3200

Activities

Yoga or blowing up **watermelons** anyone?



BA 3289

Hardware Lab

It's open **tonight**, and upon request on **#hardware** on Slack!!

BA 1160

Ceremonies

All hackers regroup in **this room** at the end of the weekend!

BA 2145 - 2185

Preliminary judging

Good ol' **science-fair** style - check out other projects!

Thank you to our Venue Sponsor!



Computer Science
UNIVERSITY OF TORONTO



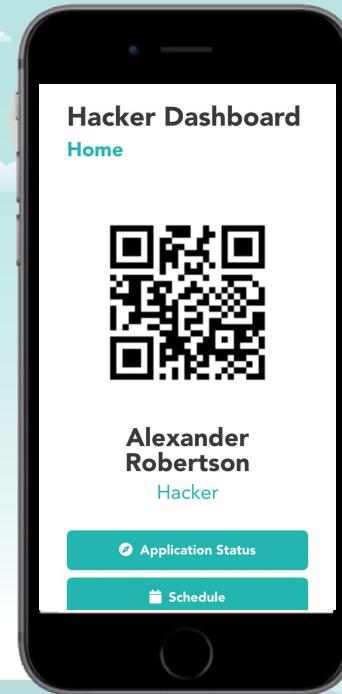
House Rules

- Water bottle policy - **reusable** water bottles only
- Food allergies and dietary restrictions
- **Teams** and team formation
- **Valuables** and theft
- Hacking done **on-site**, throughout the building
- **No sleeping quarters** in the building
- **Be kind** towards fellow hackers, mentors and organizers
- Please keep to **designated areas** - 1st to 3rd floors
- Do **not move chairs and tables** out of rooms and into hallways
- ... Most importantly, **have fun and learn something new!**

Your HT6 Passport: QR Code



- Organizers
- Hackers
- Sponsors, Judges, Mentors
- Volunteers



Slack 101

- Pinned FAQs in #general
- Channels to note:
 - **#team-formation**
 - **#keys**
 - **#hardware**
 - **#i-need-help**
 - **Sponsor-specific channels for challenges!**
- Please be **respectful** of fellow hackers, mentors and organizers while on slack!

Hardware 101

- Our Hardware Lab gives you access to:
 - Arduinos, servos, sensors, breadboards, and more!
 - Ping **#hardware** to inquire about anything you're looking for
- What do I need to check out hardware?
 - A piece of valid **government-issued ID**
- The Hardware Lab will be open from **9pm - 1am on Friday** for loans and between **12pm - 1pm** and **3pm - 4pm on Sunday** for returns
 - If you'd like to check out or return hardware at any other time, you can do so by pinging **#hardware**

Message from our Founder

PEI LI

CODE [MODE]





Our **Platinum** Sponsor



intact

INSURANCE



@intact



@intactinsurance



@intactInsurance



```
177
178
179
180     global_scale_setting = FloatProperty(
181         name="Scale",
182         min=0.01, max=1000.0,
183         default=1.0,
184     )
185
186     def execute(self, context):
187
188         # get the folder
189         folder_path = (os.path.dirname(self.filenpath))
190
191         # get selected scene objects
192         viewport_selection = bpy.context.scene.objects
193
194         # get all objects
195         obj_export_list = viewport_selection
196         if self.use_selection_setting == False:
197             obj_export_list = [i for i in bpy.context.scene.objects]
198
199         # deselect all objects
200         bpy.ops.object.select_all(action='DESELECT')
201
202         for item in obj_export_list:
203             item.select = True
204             if item.type == 'MESH':
205                 file_path = os.path.join(folder_path, "{}.obj".format(item.name))
206                 bpy.ops.export_scene.obj(filepath=file_path, use_selection=True,
207                     axis_forward=self.axis_forward_setting,
208                     axis_up=self.axis_up_setting,
209                     use_animation=self.use_animation_setting,
210                     use_mesh_modifiers=self.use_mesh_modifiers_setting,
211                     use_edges=self.use_edges_setting,
212                     use_smooth_groups=self.use_smooth_groups_setting,
213                     use_smooth_groups_bitflags=self.use_smooth_groups_bitflags_setting,
214                     use_normals=self.use_normals_setting,
215                     useUvs=self.useUvs_setting,
216                     use_materials_setting,
```

[HACK THE 6IX]

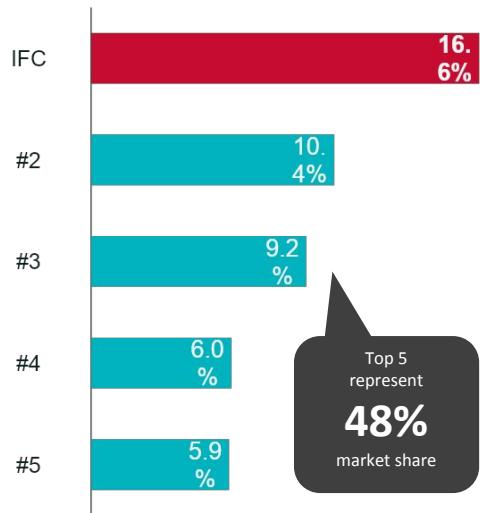
Monica Chan | August 23, 2019

IWS Python

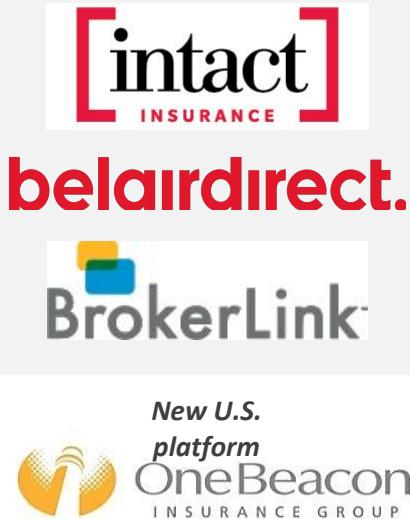


Canada's largest home, auto and business insurer

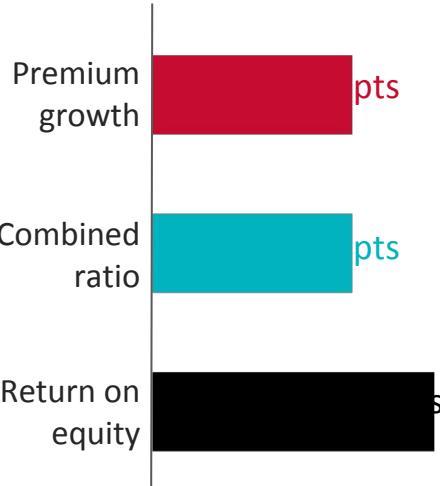
Largest market share in a fragmented industry



Distinct brands



10-year outperformance versus the industry



Industry data: IFC estimates based on MSA Research Inc. Please refer to Important notes on page 3 of the Q1-2018 MD&A for further information.
All market share and outperformance data as at December 31, 2017.

¹ Premium growth includes the impact of industry pools.

² Combined ratio includes the market yield adjustment (MYA).

³ ROEs reflect IFRS beginning in 2010. Since 2011, IFC's ROE is adjusted return on common shareholders' equity (AROE).



To us...

**Insurance is
about PEOPLE
not about things**

Customer-Driven · Integrity · Respect · Socially Responsible · Excellence



**WORST.
GENERATION.
EVER.**



Google

UBER

lyft

NETFLIX

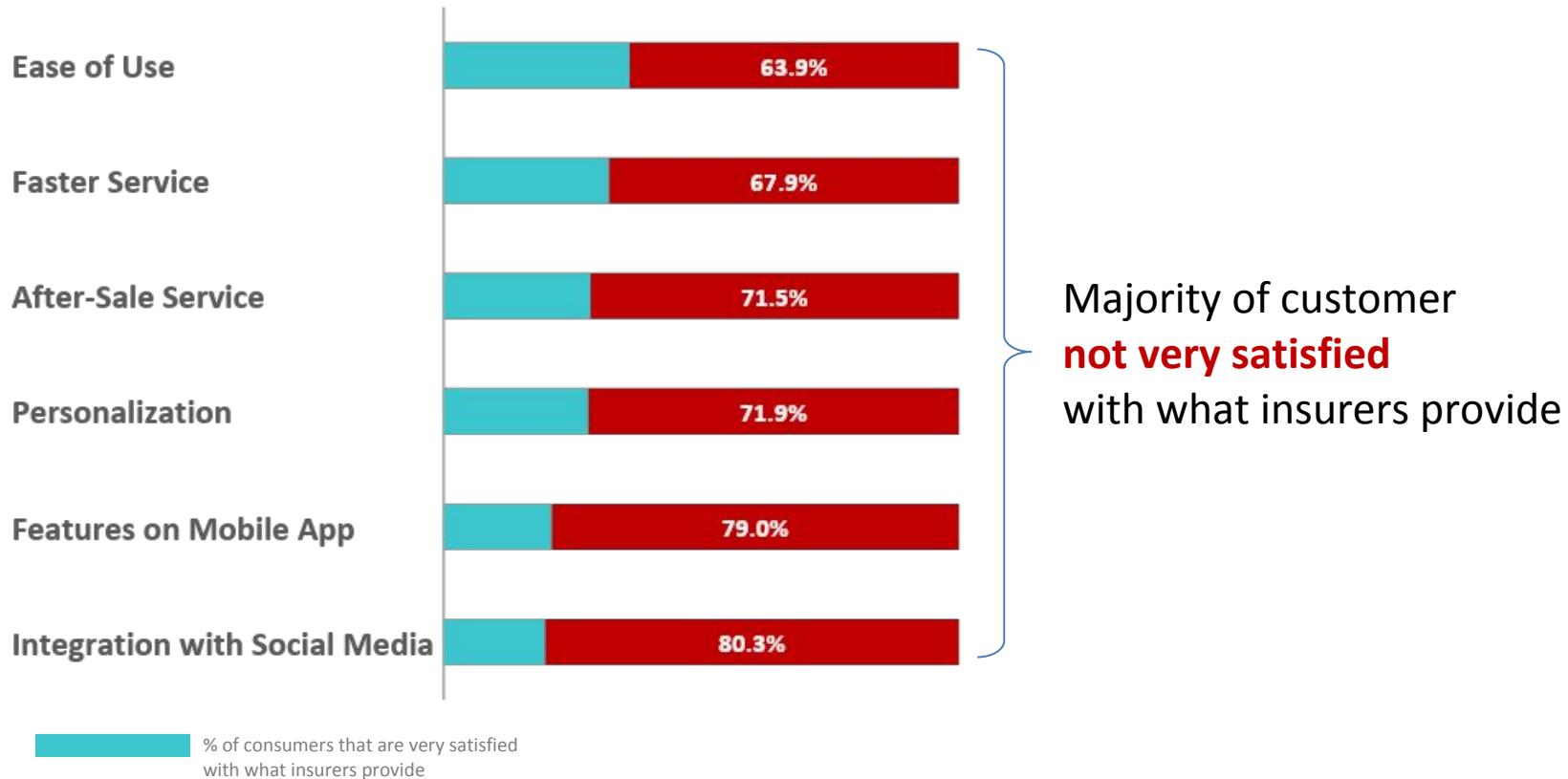
CRave™

amazon



RITUAL

Insurance industry is lagging behind



Disruption is coming

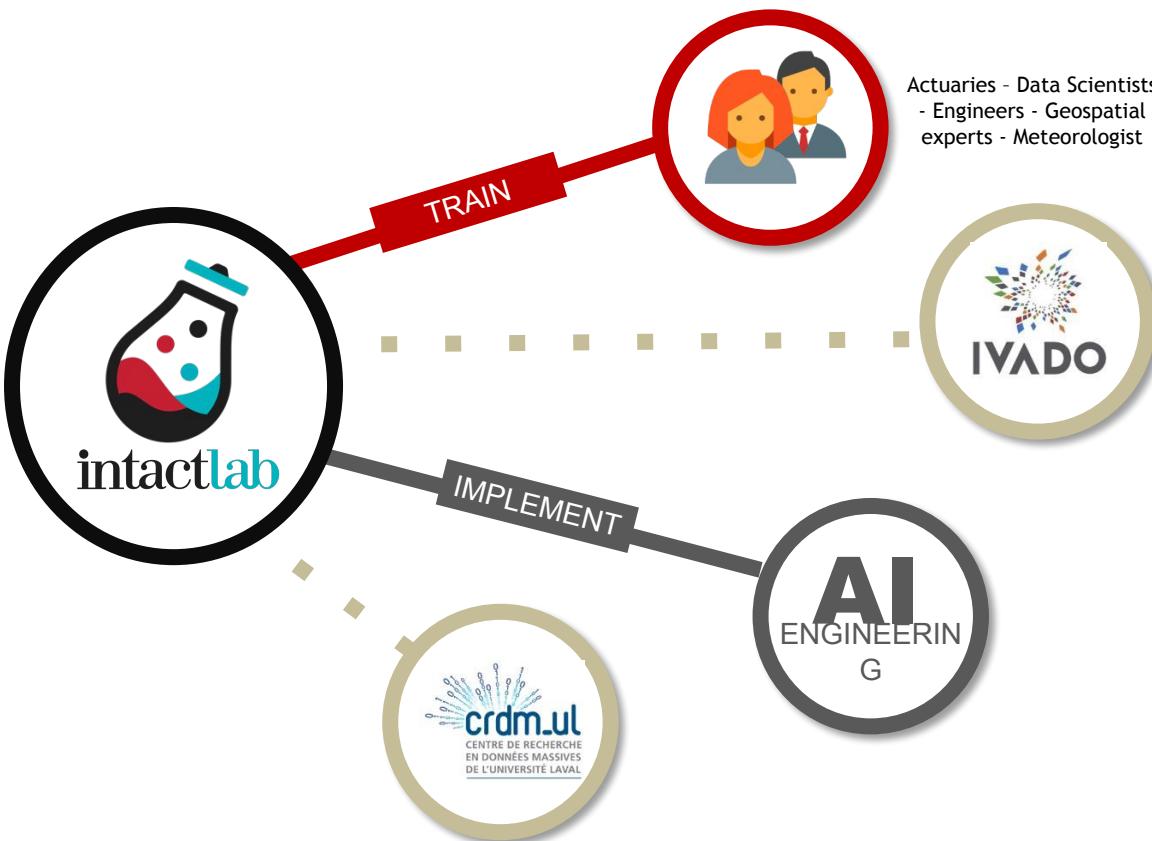




intactlab



THE RIGHT PEOPLE & TECHNOLOGY





Questions

OUR CORE VALUES

A photograph showing a group of diverse business people from various ethnicities and cultures, all wearing professional attire like suits and ties. They are gathered in a circle, holding hands, which serves as a powerful visual metaphor for teamwork, unity, and shared values.

WE

BEHAVE WITH **INTEGRITY**
RESPECT EACH OTHER
ARE **CUSTOMER DRIVEN**
STRIVE FOR **EXCELLENCE**
ARE **SOCIALLY RESPONSIBLE**

what we believe

**Insurance is not about things,
insurance is about people.**



A photograph of a family washing a dark-colored car in a residential driveway. A man in a pink shirt is leaning over the hood, a woman in a striped dress is reaching for a sponge, and a young girl is visible behind them. In the background, there's a two-story house with a porch and some lawn chairs. The scene is set during sunset or sunrise, with warm light illuminating the house and the people.

our purpose

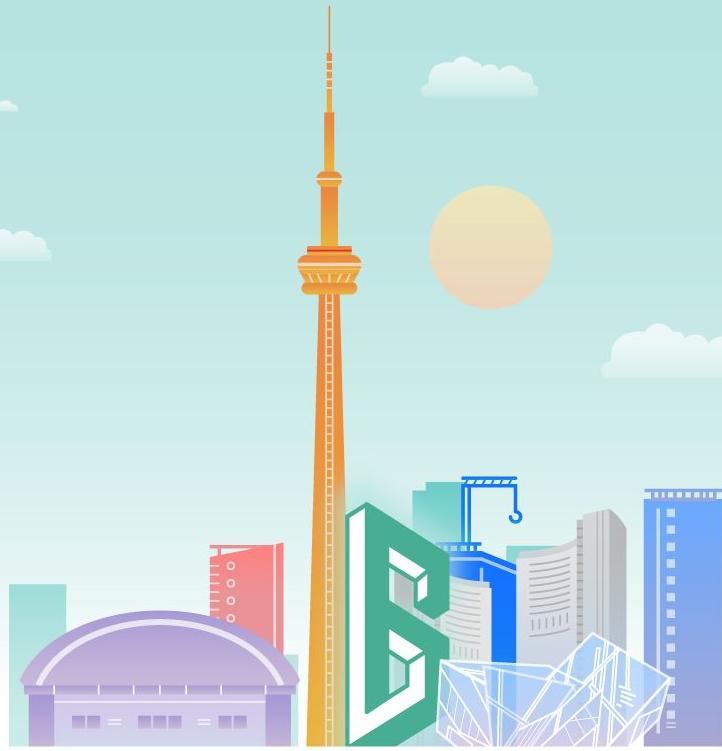
We help people, businesses and society prosper in good times and be resilient in bad times.

Best Insurance Hack Challenge

- Looking for projects that incorporates best an **insurance aspect** using machine learning and data science principles
- **Judging Criteria:** Originality, Technical Complexity, Usability and Design, Social Impact, Practicality
- Winners receive a:
 - Nintendo Switch Console

Our Gold Sponsors





@amazonwebservices



@amazonwebservices



@awscloud



Amazon Web Services

@ Hack the 6ix 2019

Adding Intelligence to Applications

Mike Apted, Startup Solutions Architect
@mikeapted

August 23-25, 2019

A selection of companies running AI/ML on AWS

NETFLIX



airbnb



The Amazon ML stack

1

AI SERVICES
(developer)

Easily add intelligence to applications without machine learning skills

Vision | Documents | Speech | Language | Chatbots | Forecasting | Recommendations

2

ML SERVICES
(developer, data scientist)

Build, train, and deploy machine learning models fast

Data Labeling | Develop Algorithms & Train Models | Deployment to Cloud or Edge

3

ML INFRASTRUCTURE
(developer, data scientists,
ml researcher, dev ops)

Flexibility & choice, highest-performing infrastructure

Optimized Frameworks | Deep Learning Containers | High-performance CPU & GPU Instances

The Amazon ML stack

AI services

	VISION	SPEECH	LANGUAGE	CHATBOTS	FORECASTING	RECOMMENDATIONS		
1	 REKOGNITION IMAGE	 REKOGNITION VIDEO	 TTEXTRACT	 POLLY  TRANSCRIBE	 TRANSLATE  COMPREHEND	 LEX	 FORECAST	 PERSONALIZE

ML services

 Amazon SageMaker	Ground Truth	Notebooks	Algorithms + Marketplace	Reinforcement Learning	Training	Optimization	Deployment	Hosting
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ML frameworks + infrastructure

FRAMEWORKS	INTERFACES	INFRASTRUCTURE							
 TensorFlow  PYTORCH	 mxnet  Keras	 GLUON	 EC2 P3 & P3DN	 EC2 G4	 EC2 C5	 FPGAS	 GREENGASS	 ELASTIC INFERENCE	 INFERENTIA

Adding intelligence to your applications – an API call away

VISION	SPEECH	LANGUAGE	CHATBOTS	FORECASTING	RECOMMENDATIONS
 REKOGNITION IMAGE	 REKOGNITION VIDEO	 TTEXTRACT	 POLLY	 TRANSCRIBE	 TRANSLATE  COMPREHEND

more ...

object detection

recommendations

document analysis

tracking in videos

text to speech

speech to text

activity recognition

text detection in images

chat bots

unsafe content detection

sentiment analysis

language translations

face analysis

forecasting



Can I use _____ language/framework? – Yes!

The screenshot shows the AWS Developer Center Tools page. At the top, there's a navigation bar with links for Contact Sales, Support, English, My Account, and Sign In to the Console. Below that is a secondary navigation bar with links for Products, Solutions, Pricing, Documentation, Learn, Partner Network, AWS Marketplace, Explore More, and a search bar.

The main content area has a "Developer Center" tab selected. Below it, there are tabs for Overview, Programming Languages (with a dropdown arrow), Tools (which is currently selected and underlined), Community, and Blog.

The "Tools" section is divided into several categories:

- SDKs**: Includes icons for JavaScript (JS), Python, PHP, .NET, Ruby, Java, Go, Node.js, and C++.
- Mobile SDKs**: Includes icons for Android, iOS, React Native, Mobile Web, Unity, and Xamarin.
- IoT Device SDKs**: Includes icons for Embedded C, JavaScript, Arduino Yún, Java, Python, and C++.

aws.amazon.com/developer/tools

Is it easy to get started? – Yes!

Python

```
session = boto3.Session()  
client = session.client("rekognition")  
response = client.detect_faces(...)
```

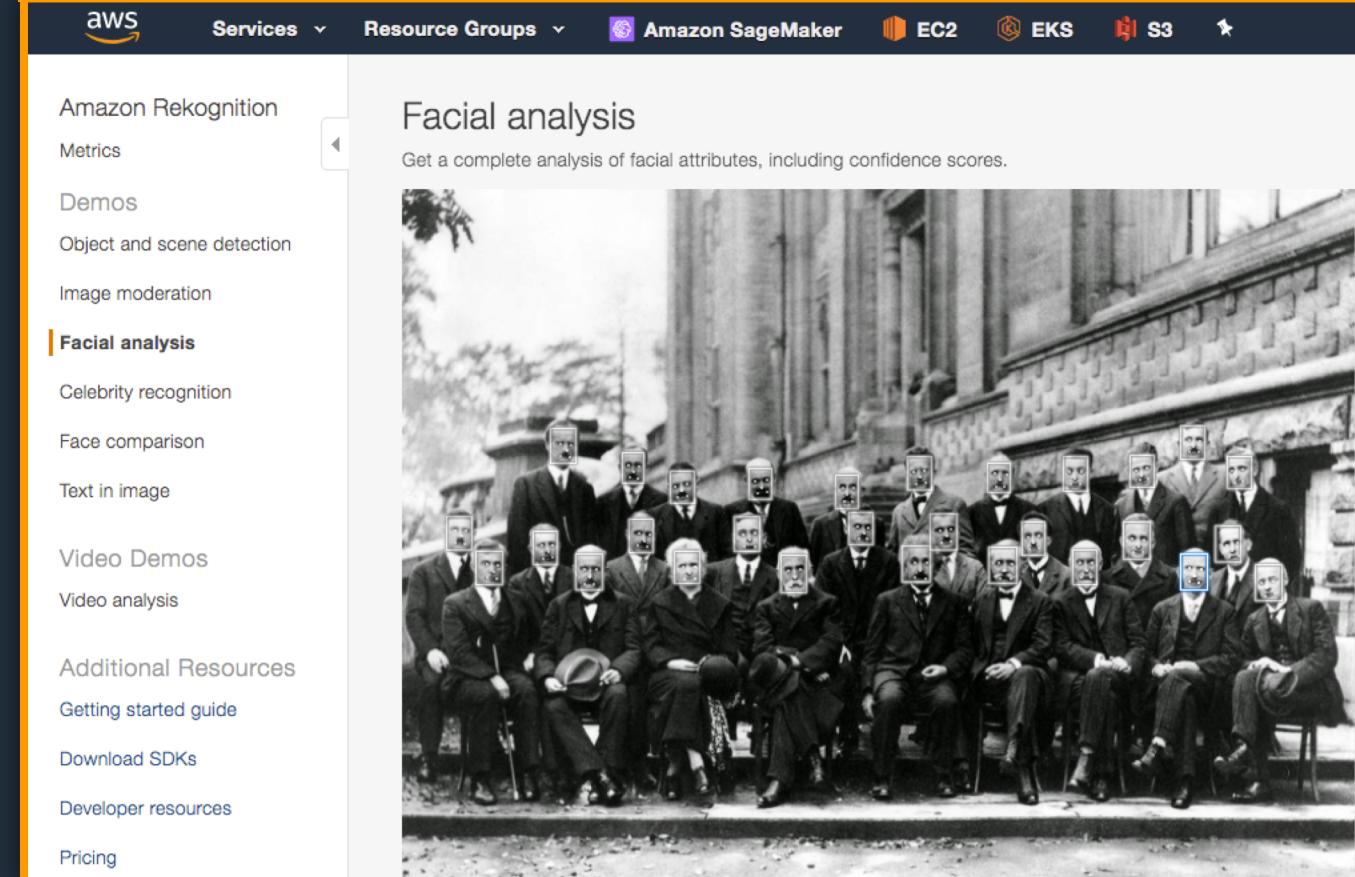
JavaScript

```
const AWS = require('aws-sdk');  
var rekognition = new AWS.Rekognition();  
rekognition.detectFaces(...)
```

CLI

```
$ aws rekognition detect-faces --image-bytes "fileb://..."
```

AWS Console



Demo: Face detection using a webcam feed

From a webcam feed detect:

- Gender, age, smile, beard, emotion

```
while True:  
    success, image = vidcap.read()  
    cnt = 0  
    t1 = current_milli_time()  
    while success:  
        success, frame = vidcap.read()  
        if success:  
            scaled_frame = cv2.resize(frame, (int(width * scale_factor), int(height * scale_factor)))  
  
            rval, buffer = cv2.imencode('.jpg', scaled_frame)  
            img_bytes = bytearray(buffer)  
            response = rekog_client.detect_faces(Image={'Bytes': img_bytes},  
                                                Attributes=['ALL'])  
            display(frame, response)
```

The AWS hackathon challenge

We are looking for the **best use**
of AWS AI / ML services in your
project!

Prizes for each winning team member!

1st Place



AWS-branded
Mechanical Keyboard

2nd Place



Echo Spot

3rd Place



Echo

Credits & Swag

- \$100 in AWS credits will be given to each participant who builds for the AWS challenge or uses AWS for their project.
- We have all kinds of free swag for everyone, too.



More machine learning happens on AWS than anywhere else



AWS AI / ML Resources & Documentation

- AWS AI / ML services:

<https://aws.amazon.com/machine-learning/ai-services/>

- AWS Hackathon Guide:

<https://syum.github.io/aws-hackathon-guide/>

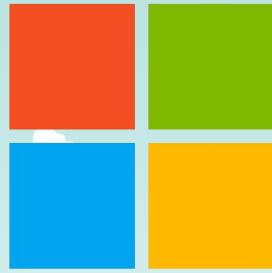
Saturday 8/24 1:00 PM Workshop Session:
Deeper dive into Machine Learning APIs and SageMaker

Happy building and thank you!

#buildon

Mike Apted

Twitter: @mikeapted
Email: mikapted@amazon.com



Microsoft



@microsoft



@microsoft



@microsoft

Microsoft at Hack the 6ix

Cassie Breviu

Cloud Advocate, Microsoft

 @cassievie



What I've learned from working in tech



1. Everyone adds value

(and imposter syndrome is real)



Hello, world!

- 2010** Discovered I could write code in Excel and that I loved writing code.
- 2012** Switched careers to tech and worked in tech support for 6 months and then was promoted to a business analyst.
- 2014** Finished my associate's degree in computer science while working full time and started a job in QA knowing it would turn into a jr developer job.
- 2014** 3 months later I moved into a developer role at the same company
- 2017** Taught myself how to build machine learning models
- 2019** I <3 working at Microsoft



2.
Be your
authentic self!



Amazing women who bring their whole selves to work and rock it!



Chloe Condon  

@ChloeCondon Follows you

Cloud Dev Advocate @microsoft   Recovering musical theatre actress   Diagnosed & living w/ RBF   TLDR: Elle Woods but computers  

San Francisco

etsy.com/shop/Authentic...



D:\ona\Sarkar 

@donasarkar

Chief #NinjaCat #WindowsInsiders @microsoft|Wrangling 16M delinquents for tech + community|Declare var not war|@FastCompany Most Productive People|she/her

 donasarkar.com



Ashley McNamara 

@ashleymcnamara

Software & Stuff @Microsoft @Azure  @GoogleDevExpert Working with Go, Linux, & Web  Always carpin' all them diems   Contact: hello@ashley.dev

Seattle, WA

 ashleymcnamara.com

3.

Diverse teams perform better

(it's scientifically proven)



A study performed by MIT found that

diverse teams
outperform non-
diverse ones by

35%



What I'm trying to say is...

There's **no secret formula** to getting a job in tech, everyone has a different journey

Be proud of who you are and what you bring to the table

Try something new, there's no better time than the present!

Go have fun, help each other, and explore!



We're excited to be here!

Swing by our booth, say hi, and check out today's sessions

Hack with Azure and AI

Tomorrow at 10:00 AM – 11:00 AM

Speaker: Cassie Breviu

BA 1240

Check out our GitHub repo:

www.aka.ms/HackWithAzure

We have **\$100** in free Azure credit for you!

Resources for you and your projects



Come to the Microsoft Booth!
(we'll be around to help!)

Prizes



Azure Champ Prize

- Use *any* Azure service and enter!
- Hack for Good - did it have a positive impact?
- Winners Receive:
 - \$1,000 USD to be donated to an approved charity of their choice to support our initiative – social good!
 - Prioritized entry in the upcoming Imagine Cup Semi-Finals with two chances to become one of the few elite teams at our regional finals!
 - Surface Go's plus keyboards will be given to each team member!

Happy Hacking!

Cassie Breviu

Cloud Advocate, Microsoft

 @cassievie



Our **Silver** Sponsors



Deloitte.



@deloittecanada



@deloittecanada



@deloittecanada

Deloitte.



150+

Countries using our services



263,900

Professionals worldwide



\$43.2 billion USD

FY18 global revenue



957

Partners in Canada

Deloitte.



Go to
deloitte.ca/careers to
view our openings



Choose a role of interest
(select one posting and
service line only)



Submit your cover letter,
resume, and unofficial
transcript in one PDF



ONTARIO TEACHERS' PENSION PLAN



@myOTPP



@OTPPInfo

ABOUT ONTARIO TEACHERS'

\$191.1B in net assets

9.9% returns since inception

80%+ of assets managed in-house

Toronto, London and Hong Kong offices

*We invest to provide retirement security for
323,000 active and retired school teachers
in a fully funded defined benefit plan.*



For more information contact the student
program team at: **student_program@otpp.com**



otpp.com/careers

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Our Talent Sponsors





CapitalOne



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@capitalone



@capitalone

Rotman

**Master of
Management
Analytics**



@rotmanschoolof
management



@rotmanschool



@rotmanschool



Our Tech Sponsors



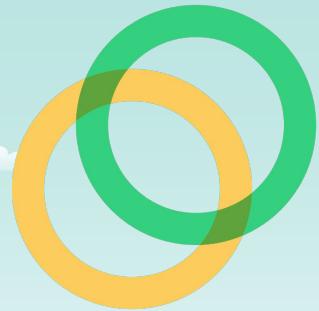
Vena



@venasolutions

FinTech with Impact Challenge

- Looking for **creative financial applications** that keep the customer front of mind!
- **Judging Criteria:** Originality, Technical Complexity, Usability and Design, Social Impact
- Winners receive a selection of the following:
 - Bluetooth speaker
 - Polaroid camera
 - Mini drone
 - Wireless earbuds



celo



@CeloHQ



Building Decentralized Applications

HackThe6ix, August 23rd, 2019

www.celo.org

@nambrot

Meet Kaburu



Unbanked

1.7B

No Formal ID

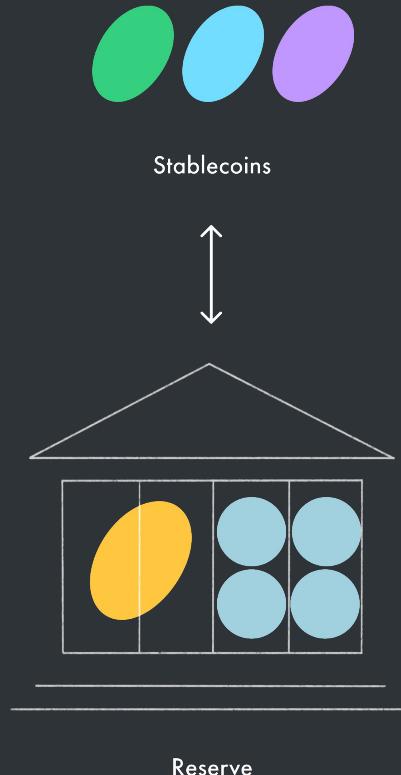
1.1B



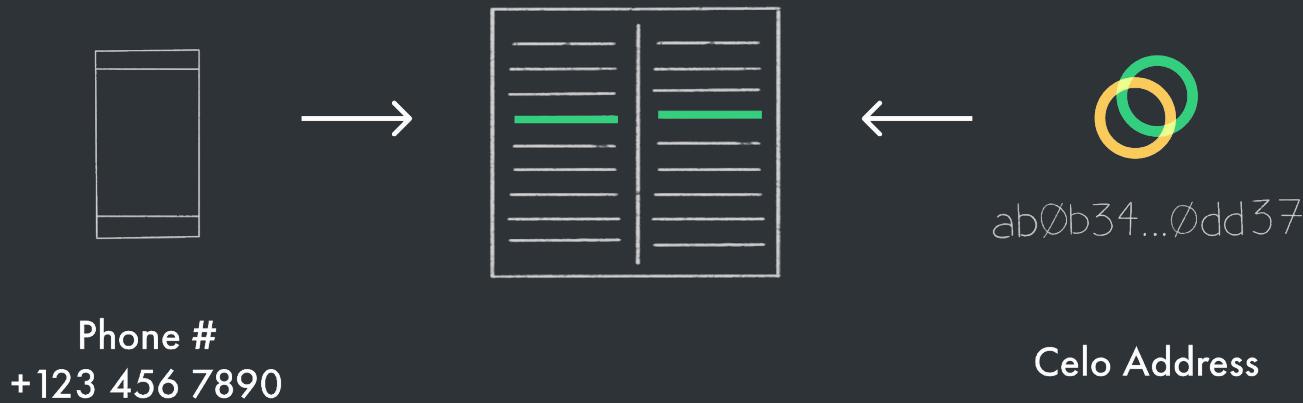
Celo is an open platform that makes financial tools accessible to anyone with a mobile phone.



Stabilizing Value

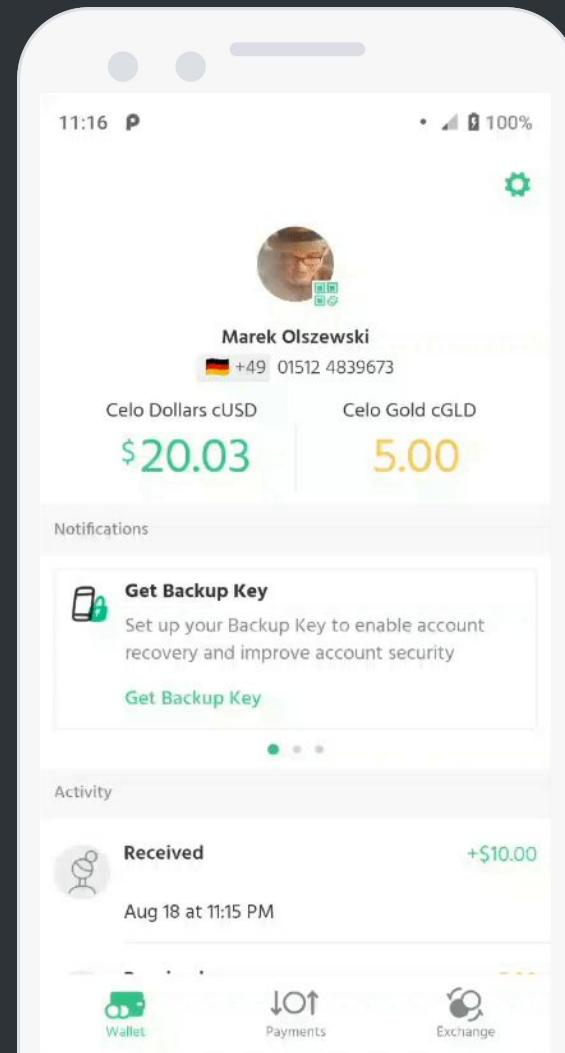


Mapping Phone Numbers To Wallet Addresses





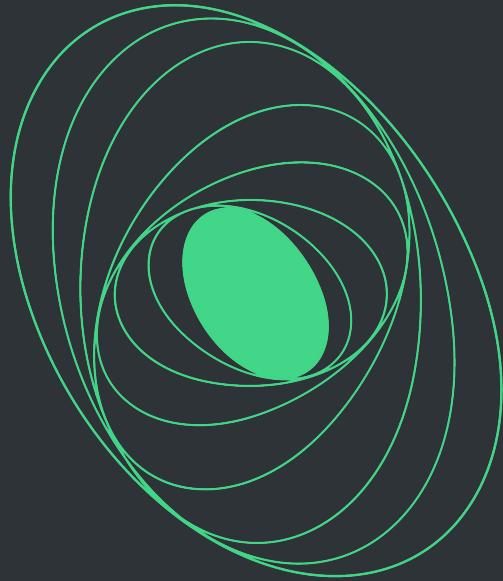
Celo Mobile Wallet



Smart Contracts

```
interface GasToken {  
    function transfer(address, uint256) external returns (bool);  
    function approve(address, uint256) external returns (bool);  
    function transferFrom(address, address, uint256) external returns (bool);  
    function totalSupply() external view returns (uint256);  
    function balanceOf(address) external view returns (uint256);  
    function allowance(address, address) external view returns (uint256);  
    function debitFrom(address, uint256) external;  
    function creditTo(address, uint256) external;  
}
```





Dapps Are Broken Today

Require Plugins

Don't Reach Masses

Hard to use



Celo

Mobile-First SDK

Allows anyone to build
mobile-first native dapps.

See docs.celo.org for
technical documentation

```
async function sendTx() {
  requestTxSig(
    web3,
    [{ tx, from, to, gasCurrency }],
    request
  )
  const response = await waitForSignedTxs(
    request.requestId
  )
  await web3.eth.sendSignedTransaction(
    response.rawTxs[0]
  )
}
```



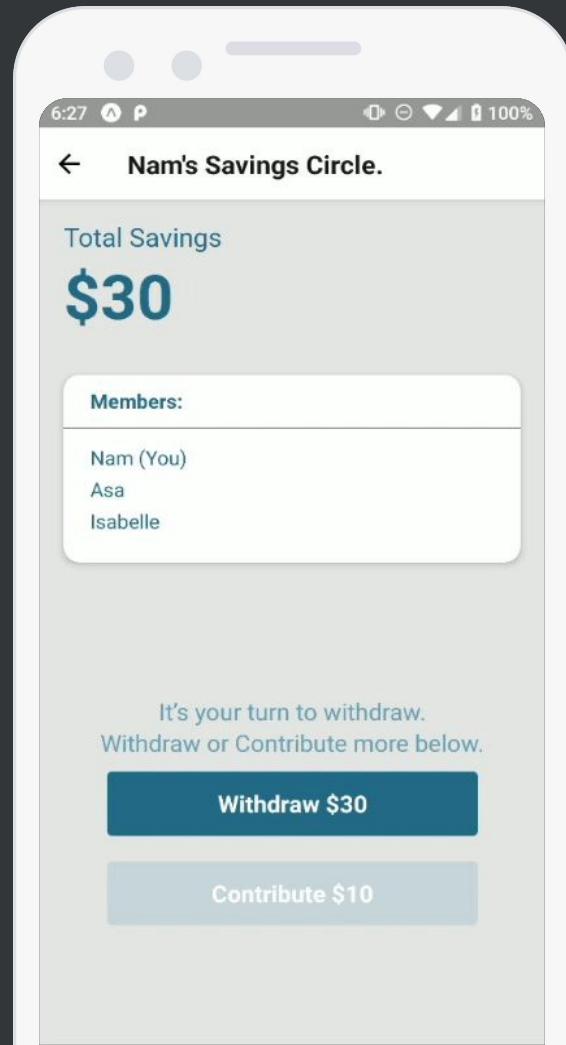
Example Dapp

Savings Circle





Example Dapp Savings Circle

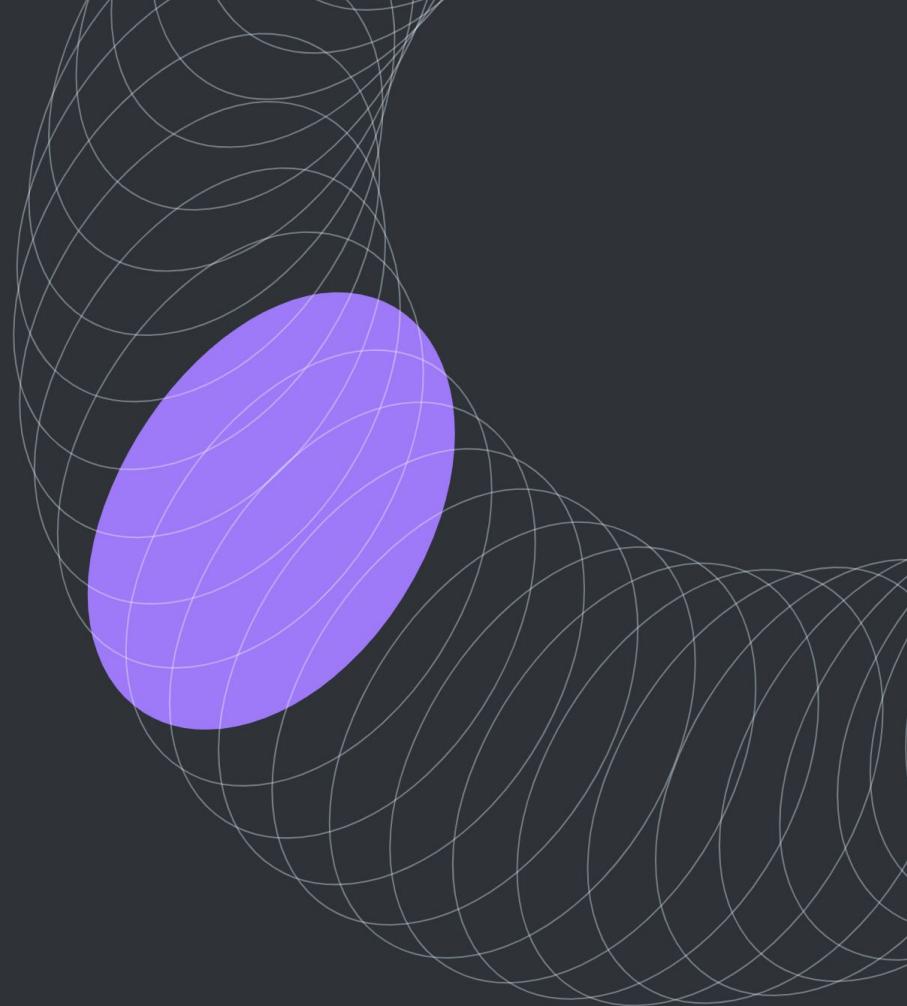


POLYCHAIN

Celo Ecosystem Fund

a16z

POLYCHAIN
CAPITAL



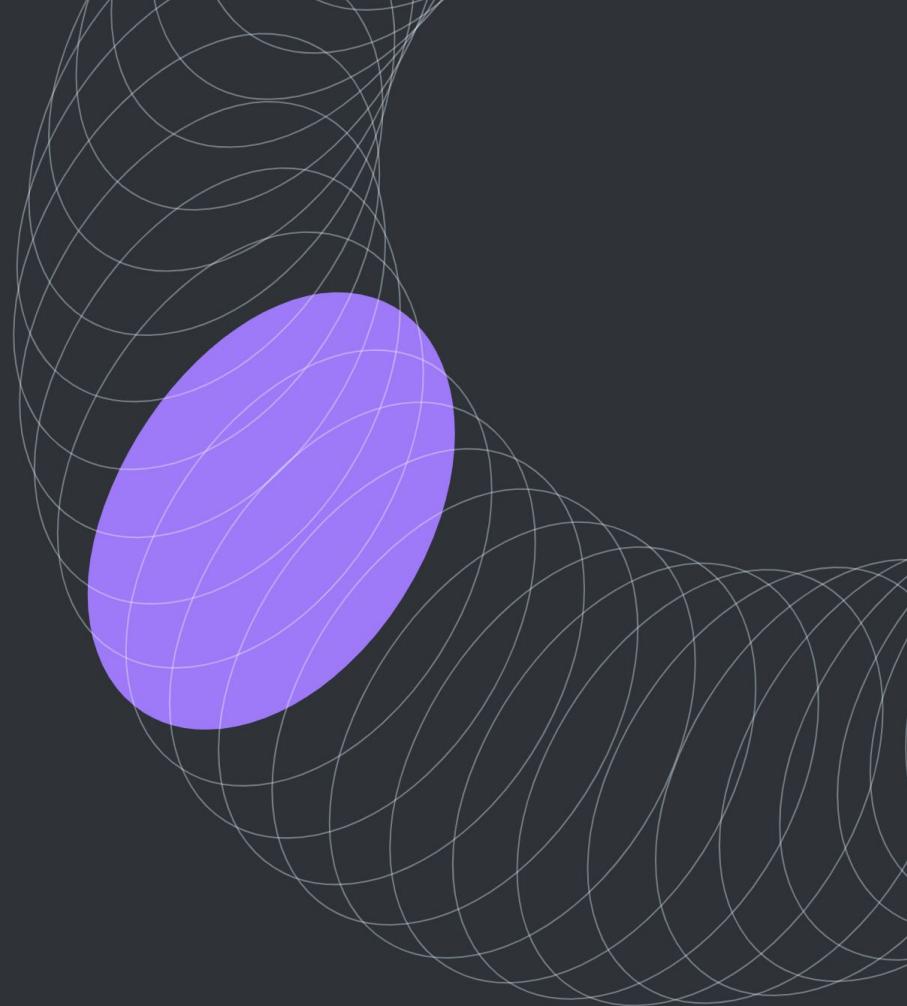
Get started

Celo Application Prize: \$300 CAD

Join #celo slack channel

Check out docs.celo.org

Reach out!





Thanks, we value your time

@nambrot

@CeloHQ

celo.org



Judging Criteria

Technical Complexity

25% Weighting

Technical complexity (e.g. number of API uses, depth of API use) and other incorporated technologies/hardware.

Design

25% Weighting

User experience, intuitiveness, ease of use, and generally how good the submitted project looks.

Business Practicality

25% Weighting

The project's real business applications (e.g. can the proof-of-concept be expanded to create a real, marketable product to consumers).

Creativity

25% Weighting

How unique and original the submitted project is.

Submission Guidelines



9:00AM



Devpost Submission

Access Devpost via your hacker dashboard ('Challenges/Prizes').



9:30AM



Preliminary Judging

Science-fair fashion: judges go around to each workstation!



1:00PM



Final Pitches

4-min pitch + 3-min Q&A to judges & participants on stage!

Our In-Kind Sponsors



CODE [MODE]



indico

CloudSploit



balsamiq®

Voiceflow



BrainStation®

Hackathon Prizes



1st Place

In addition to:

- \$1,000 CAD Cash (Sponsored by **RBC**)
- \$500 CAD in **Indico** API Credits

Per Team Member:

- One (1) Oculus Go
- One (1) **BrainStation** Course
- One (1) Coupon for 4 - Month
Cloudsploit Premium plan
- One (1) **Voiceflow** Premium License

2nd Place

In addition to:

- \$500 CAD Cash
- \$250 CAD in **Indico** API Credits

Per Team Member:

- One (1) Echo Dot (3rd Gen) with Two (2) Philips Hue Smart Bulbs
- One (1) **Voiceflow** Premium License

3rd Place

In addition to:

- \$240 CAD Cash
- \$100 CAD in **Indico** API Credits

Per Team Member:

- One (1) Logitech G305 Gaming Mouse
- One (1) **Voiceflow** Premium License

Sponsor Challenges

★ Best Insurance Hack - [Intact Insurance](#)

- ONE NINTENDO SWITCH CONSOLE PER TEAM MEMBER

★ Azure Champ Prize - [Microsoft](#)

- \$1,000 USD DONATED TO TEAM'S CHOICE OF CHARITY
- ONE SURFACE GO PLUS KEYBOARD PER TEAM MEMBER
- PRIORITIZED ENTRY TO IMAGINE CUP SEMI-FINALS

★ AWS AI/ML Services Prize - [Amazon Web Services](#)

- FIRST PLACE: ONE CUSTOMIZED AWS-BRANDED MECHANICAL KEYBOARD PER TEAM MEMBER
- SECOND PLACE: ONE ECHO SPOT PER TEAM MEMBER
- THIRD PLACE: ONE ECHO PER TEAM MEMBER

Sponsor Challenges

★ FinTech with Impact - [Vena Solutions](#)

- A SELECTION OF: A BLUETOOTH SPEAKER, A POLAROID CAMERA, A MINI DRONE, AND A PAIR OF WIRELESS EARBUDS PER TEAM MEMBER

★ Celo Application Prize - [C Labs](#)

- \$300 CAD CASH PRIZE

★ Most Fun Hack - [CodeMode](#)

- \$500 CAD PRIZE BUNDLE OF TOP-SELLING BOARD GAMES

Workshop Wisdom Challenge

Rules:

- Earn one (1) point for each workshop you attend!
- Prize will be raffled out among the hackers with the highest scores!

Prize:

One (1) Amazon Echo Dot

Share Your HT6 Challenge

Rules:

- Earn one (1) point for each social media post you publish with #HT62019 and/or tag us @HackThe6ix
 - One (1) extra point per post if you tag one of our sponsors or use their hashtag!
- Valid platforms: Facebook, Instagram, Twitter

Prize:

One (1) Logitech G403 Prodigy Wired Gaming Mouse

Share your HT6 moments!





HAPPY HACKING!