Outline

- Opportunity and challenge
- Dream
- Options
- Examples
- Invitation
Revolution
Today’s Advances are Real but Hype is Not New
Computational power
Data

+ Algorithms

Magic

But…
Why can’t we make that sort of magic ourselves?
What has allowed anyone to do it?
Enablers of Today’s Revolution: Unprecedented Computation, Unprecedented Data…

From: Fairchild internal document

1965 Electronics magazine
Data, data everywhere…

All of human history until 2004

~5 Exabytes

Today

12:00AM

11:59PM

~5 Exabytes
Computational power

Data

+ Algorithms

Magic
Exploit Parallelism
Exploit Parallelism
Exploit Parallelism

Facebook data center (via AnandTech):
Why can’t we make that sort of **magic** ourselves?
You need:

1. A capable computational technique
2. That technique to be quick and accessible
The Problem in Short

Programming all but the simplest algorithms is hard and slow!

Even well-understood algorithms take substantial allocation of time and developer resources to an area that is immensely critical but not unique to your business.

New parallel architectures are difficult to exploit.

And it gets *really* hard and expensive if you want to run algorithms on big data *with* instant performance.

Data streams today are easily TB to PB, and at least require low latency.

Even GB-scale can require data center or cloud infrastructure, installation/maintenance of packages, Hadoop, UI for analysts, and on and on.

Even if you’re willing to pay the above costs, the expertise required for high-performance code is well beyond the capabilities of the vast majority of companies, large or small.
Why can’t we make that sort of magic ourselves?
Can’t others enable us to make that sort of **magic** ourselves?

Yes!
APIs

IoT-A
ThingSpeak
AWS IoT
zetta
carriots
imagga
clarifai
senseiOT
DRONEKIT
xively
kura
Onu: Enabling IoT

With just a couple lines of code to tap into our system,

an app can recognize objects in a live stream

an image set or video can be indexed or queried

a transcript of a live conversation can be produced

...  

plus algorithms and applications outside IoT
Solution Attributes

Easy to use
Seamless for engineers to leverage
Intuitive interfaces

Powerful
Scalably handles any size data
Rich suite of algorithms
Rely on our algorithmic and process optimization expertise

Fast
Very highly optimized and parallelized code; low latency, high throughput
Makes use of the best architecture for the problem, including GPUs, SSDs, etc., and the best ordering (“Cloud Compiler”)

Flexible
Use hosted-cloud solution or a system that runs on your local infrastructure or code for your device
Data can live where you want

Open
No proprietary workflow trap because it plays nice; fully transparent
Data belongs to you
Want to try the system?
Send us a mail to be notified for the next batch of invitations.

anticipate@onutechnology.com
Image Work Ongoing

Steady progress
But not yet perfect
Our quadcopter with a smartphone attached!
“We can only see a short distance ahead, but we can see plenty there that needs to be done.”

—Alan Turing
Onu Technology

The world’s most powerful algorithms, for everyone

Get in touch if you’re interested in working together:
info@onutechnology.com

Sign up for waiting list:
anticipate@onutechnology.com