



Edge Computing Hackathon @ CMU?

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An *edge-native application* is deeply dependent on one or more unique edge computing attributes•

- Low latency, bandwidth scalability, enhanced privacy, WAN failure resiliency, immovable data access

Application Types

-  Primary execution site
-  Optional non-critical use



	Tier-3 mobile or IoT device	Tier-2 edge	Tier-1 cloud
Device-only			
Edge-accelerated, cloud-native <i>aka "edge-accelerated"</i>			
Edge-enhanced, device-native <i>aka "edge-enhanced"</i>			
Edge-native			

Chicken-or-Egg Problem

Hard to justify creation of edge-native applications without edge deployments

Hard to justify edge deployments without edge-native applications

How do we break this deadlock?

Hands-on Evangelization

Especially to young developers (e.g., students)

Opportunity to stimulate new efforts (possibly leading to startups)

Create awareness of the potential of edge computing

Playful experimentation can lead to delightful outcomes

Optimal timeframes:

- late March/early April 2020
- late October 2020

Challenges

CMU students incredibly busy, packed schedules

- many distractions, how to attract?
- goodies (e.g. cool new hardware, cool demos)
- how much background knowledge/skills?

Max commitment is one day

- convey the significance of edge computing
- learn some new tools/skills
- leverage powerful resources
- actually do coding and testing
- final demo and prize(s)

Interest from OEC Companies?

Possible approaches

- **tightly constrained hackathon**
e.g. Envrmnt SDK?, Azure Cognitive Services?, Gabriel applications?, ...
- **wide open hackathon**

Possible contributions

- **people time to participate/educate/mentor**
- **share experience from other hackathons**
- **cool hardware to attract participants**
- **open source platforms to make 1 day more productive**
- **demo examples from other hackathons**
- **prizes**