The Space Apps Data Bootcamp and NASA Women in Data Panel

During four years of learning and engaging with the community through the International Space Apps Challenge, NASA has seen again and again the power of collaboration in using data to address challenges on Earth and in space. That impact is enhanced when collaborators coming together are able to bring with them a wide diversity of background experiences, skills and viewpoints that can inspire problem solving in novel ways and lead to breakthrough innovation. With that in mind, NASA is seeking to pioneer ways to broaden the base of hackathon participants to include communities with an ever-greater diversity of backgrounds and skills. Enter the Space Apps Data Bootcamp—an opportunity for individuals interested in participating in hackathons to get their feet wet using skills and resources that will help them to engage productively as project team members at a hackathon, as well as to gain a better understanding of how the existing skills and perspectives they bring to the table can be an asset to their project teams. In keeping with NASA's focus on Women in Data for the 2015 Space Apps Challenge, the Space Apps Data Bootcamp will be led by many exceptional women making an impact on the world through their engagement with data. The Bootcamp is open to the public.

VENUE

Civic Hall, 156 5th Avenue, New York, NY

AGENDA OUTLINE

Programming will be streamed live throughout the day and available publicly, as well as promoted by the 138 sites participating in the Space Apps Challenge around the world.

9:00 a.m.   **Welcome (NASA) and Boot Camp Intro (Featured Speaker)**
Themes
- What to expect from a hackathon
- What it means to engage and where is the value
- Understanding arc of a project over a hackathon weekend
- Determining what role you can play and where you can be part of the solution process.

9:30   **Hackathon Stories**
Themes
- Showcase stories of hackathon participants
- Highlight individuals from diverse backgrounds who attended hackathon events and found they were able to make unique contributions

10:00   **Problem Solving Strategies**
Themes

- Highlighting the diversity of ways problems can be solved
- Identifying basic principles/strategies for tackling a problem
- Learning to break down a problem into smaller components
- Finding the data you need

11:00   **Break**

11:15   **Communication and Storytelling**
Themes
- Storytelling as part of your project
- Communicating the value of your project
- The art and craft of the project pitch

12:15   **Lunch**

1:15   **Multi Track**

Participants break out into two groups based on interest. Ideally multiple facilitators for each group can share a few thoughts, and then support people in doing hands-on work. The livestreaming team will toggle back and forth between the two tracks.

Track 1: Hardware & Robotics
Hardware must be secured for hands-on practice
- Understanding the components of a hardware project
- Identify practice projects
  - Offer suggested basic projects with e.g. Arduino/Raspberry Pi/Little Bits
- Practice hands-on projects in small teams with support from facilitators.

Track 2: Programming and Web App Development
- Understanding the components of web app development
- Intro to programming languages: What languages suit what types of projects
- Front end web design and building a basic web form
- Identify practice projects
  - Offer suggested basic projects in CSS or HTML5
- Practice hands-on projects in small teams with support from facilitators

2:45 - 3:00 Break
Following break participants return to selected tracks.

4:15   **Wrap Up/Share Out**
Themes
- Integration/complementarity of skills from the different learning tracks

- Integration of new skills learned at the bootcamp with existing knowledge
- Integrating yourself into a community in a collaborative way

5:00   **Break**

5:30   **NASA Women in Data Panel**

Each panelist has an opportunity to speak, followed by Q&A from the audience and from online submissions.

Featured speakers:
- Cady Coleman, NASA Astronaut
- Ellen Stofan, NASA Chief Scientist
- Deborah Diaz, NASA Chief Technology Officer for IT
- Beth Beck, NASA Open Innovation Program Manager (moderator)

6:30   **Space Apps NYC Kick-Off Mixer**