

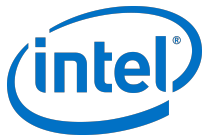


Pre-survey



<https://forms.gle/bDg5nHR38DWfuofj9>





PEARC20 HackHPC Kick-Off

July 27, 2020

If you have not yet joined the Slack Channel, you are missing out!

<https://cloudhpchack.slack.com/>



Presenter: Je'aime Powell

Organizers



Alex Nolte - *University of Tartu*
alexander.nolte@ut.ee



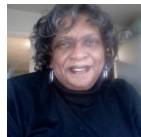
Amy Cannon - *Omnibond*
amycannon@omnibond.com



Boyd Wilson - *Omnibond*
boyd@omnibond.com



Je'aime Powell - *TACC*
jpowell@tacc.utexas.edu



Linda Hayden - *ECSU*
haydenl@mindspring.com



Agenda

- Code of Ethics - Alex Nolte
- Judging Criteria - Alex Nolte
- Schedule (Brella) - Je'aime Powell
- Deliverables - Je'aime Powell
- Communications Channels - Je'aime Powell
- Introduction to Mentors - Je'aime Powell



Ethics and Judging Criteria



Presenter: Alex Nolte

ETHICS

RESPECT

CODE

HONESTY

INTEGRITY



<https://sciencegateways.org/engage/hackathon/hackathon-code-of-conduct>

Everybody is welcome!

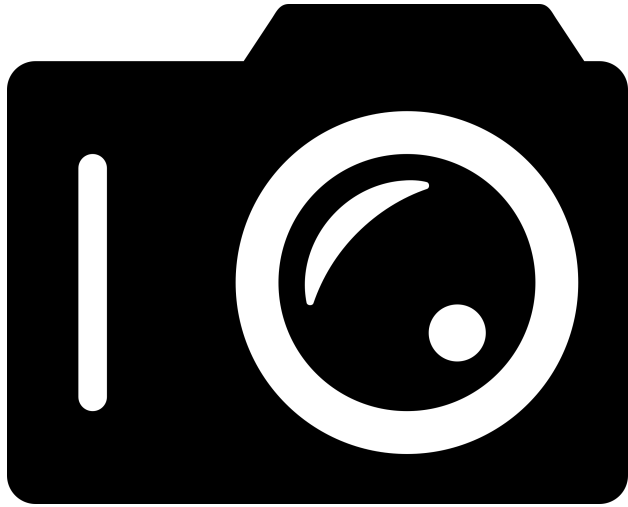




~~HARASSMENT~~







... but not everywhere and at any time!



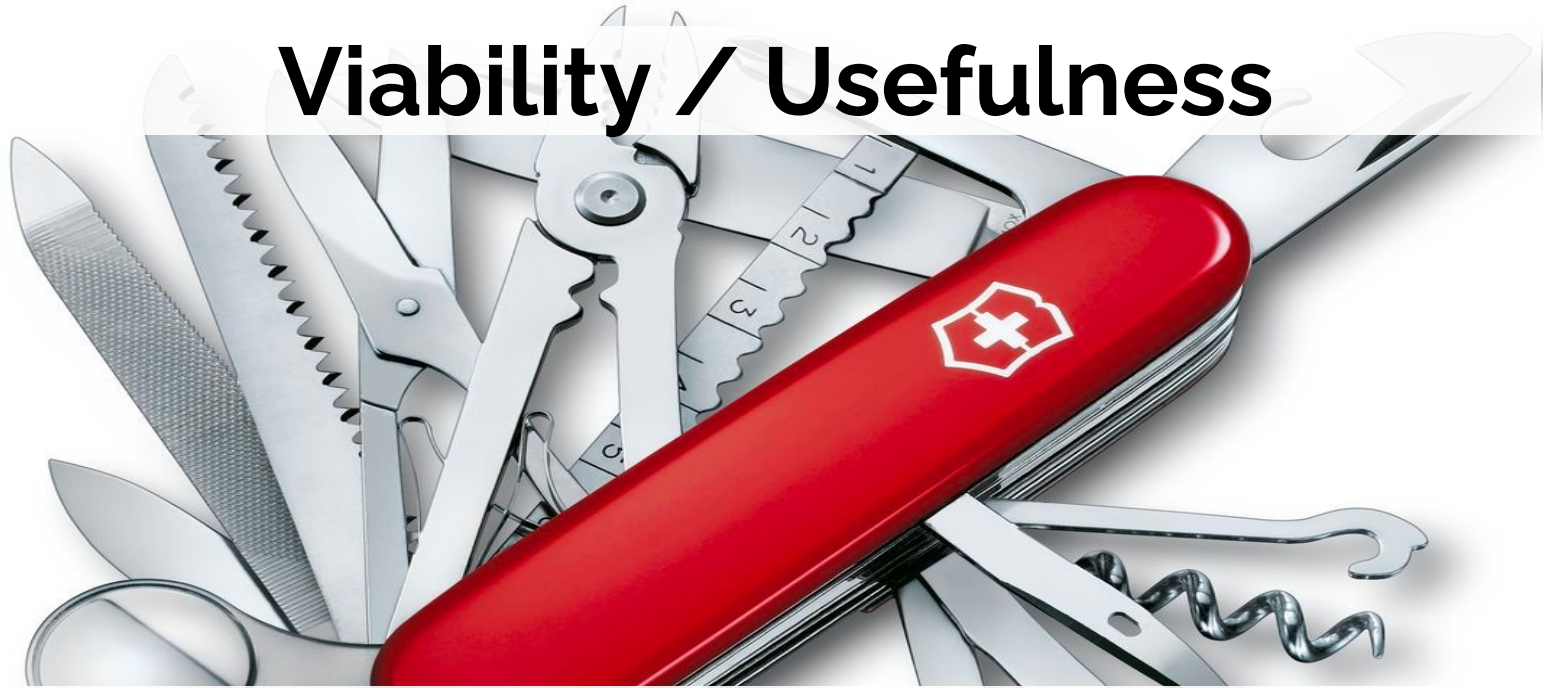
Judging criteria



6 criteria with 100 points max. per judge



Viability / Usefulness



Does the project have a realistic chance to get continued / adopted by the gateway for which it was developed? Is it realistic to build it? (20 points)



Creativity of execution / Wow-effect

How creative is the execution of the project? Did the team come up with new use-cases, big opportunities or surprises?
Novelty elements. (20 points)



UX / Polish

How is the design and user experience of the project? Is it easy to understand and use? Did the team put thought into the user experience? (10 points)



Technical complexity

How technically impressive was the hack? Was the technical problem the team tackled difficult? Did it use a particularly clever technique or did it use many different components? Did the technology involved make you go “Wow”? (20 points)



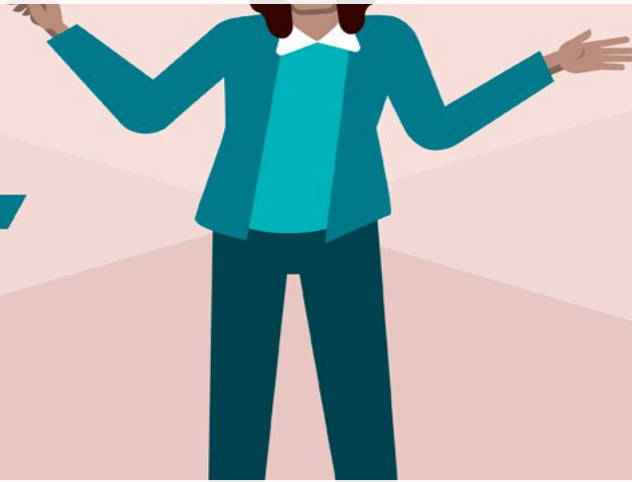
Collaboration



Did the team achieve everything they wanted? How well did the team collaborate? (20 points)



Presentation



Did the team present a functioning solution? Did the team stay within the time limit of their presentation? Was the team able to communicate their project and the value it has for the respective gateway? (10 points)



Challenge Completed



Does the solution provided by the team solve the posed challenge? (20 points)



Schedule

Event Site:

<https://jeaimehp.github.io/HackHPC-Pearc20/>



Day	Time	Activities
Monday (7/27)	1:00p(EST)/12:00p(CT)/10:00a(PT)	Kickoff Meeting <ul style="list-style-type: none"> - Ethics - Schedule - Deliverables Overview - Active Hacking Picture (Individual) [Prize] - Google Project Setup Boyd Wilson
Monday (7/27)	6:00p(EST)/5:00p(CT)/3:00p(PT)	<ul style="list-style-type: none"> - Project Introductions and Goals by the teams [Prize] - Intel Speaker Tom Krueger - Team Virtual Background Challenge [Prize]
Tuesday (7/28)	1:00p(EST)/12:00p(CT)/10:00a(PT)	<ul style="list-style-type: none"> - Status Checkpoint - Lego@HackHPC Picture (Individual) [Prize] - Cloudy Cluster Overview Boyd Wilson
Tuesday (7/28)	6:00p(EST)/5:00p(CT)/3:00p(PT)	<ul style="list-style-type: none"> - Status Checkpoint - TBD [Prize]
Wednesday (7/29)	6:00p(EST)/5:00p(CT)/3:00p(PT)	Final Presentations <ul style="list-style-type: none"> - People's Choice Award Opens
Thursday (7/30)	1:00p(EST)/12:00p(CT)/10:00a(PT)	Awards Ceremony



Connecting to Sessions



All Zoom sessions will have links provided by **Brella.io**

A screenshot of the PEARC20 event schedule page. The page shows a list of sessions for Monday and Tuesday. The first session is a "Hackathon Kick-off Meeting" at 12:00 PM on Monday, featuring facilitators Jeaine Powell, Amy Cannon, and Linda Hayden. The second session is a "Hackathon Check-in" at 05:00 PM on Monday. The third session is another "Hackathon Check-in" at 12:00 PM on Tuesday. The page includes a sidebar with navigation options like "People", "Schedule", "Stream", "Speakers", and "Exhibitors". There are also filter options for "Show" (Bookmarks, Past content) and "Filter" (Sessions & Meetings, Sessions, Meetings, Networking availability).

PEARC20

27th Jul - 31st Jul

PEARC20

27th Jul - 31st Jul

People

Schedule

Stream

Speakers

Exhibitors

More

PEARC20

All times in your preferred time zone: (05:00 CDT) America/Chicago [Change time zone](#)

Monday

12:00 PM

Hackathon Kick-off Meeting

Jeaine Powell (Facilitator)
University of Texas/TXRC

Amy Cannon (Facilitator)
OmniBand

Linda Hayden (Facilitator)
Elizabeth City State University

2h 0min

Hackathon

05:00 PM

Hackathon Check-in

1h 15min

Hackathon

Tuesday

12:00 PM

Hackathon Check-in

2h 0min

Hackathon

Clear filters

Show

Bookmarks

Past content

Filter

Sessions & Meetings

Sessions

Meetings

Networking availability

Day

All days

Monday 27th July

Tuesday 28th July

Wednesday 29th July

Thursday 30th July

Friday 31st July

Tags / Tracks

Application Software, Support, and Outcomes

Best Paper

Best Student Paper

ML/AI

Advanced Research Computing Environments

Workforce development, Skills

A screenshot of the session details page for the "Hackathon Kick-off Meeting". The page shows the time "12:00 PM - 02:00 PM • 2h 0min • Mon" and the session title. Below the title is a "Hackathon" tag. The "SPEAKERS" section shows three circular icons labeled "AC", "LH", and "JP". The "DESCRIPTION" section contains the text "Join Zoom meeting [HERE](#)" and "Hackathon Schedule: <https://jeaimhp.github.io/HackHPC-Pearc20/>".

12:00 PM - 02:00 PM • 2h 0min • Mon

Hackathon Kick-off Meeting

Hackathon

SPEAKERS

AC LH JP

DESCRIPTION

Join Zoom meeting [HERE](#)

Hackathon Schedule: <https://jeaimhp.github.io/HackHPC-Pearc20/>

Participating Mentors Introductions



- **Boyd Wilson** - *Omnibond*
 - Take a gateway of choice and port it to the cloud using CloudyCluster (CC) or
 - JupyterLab Interface for WRF on CC



- **Sudhakar Pamidighantam** - *IU*
 - Create Workflows and Django plugins for post processing data



- **Joon Yee Chuah** - *TACC*
 - Repeatable example of how to aggregate data, generate a visualization using Dash or another visualization technology, and publish the data in an automated fashion



- **Je'aime Powell** - *TACC*
 - GCP-based Science Gateway Base



- **Charlie Dey** - *TACC*
 - Data interface and plotting for jupyter notebooks



- **Brandi Kuritz** - *TACC*



- **Christopher I. G. Lanclos** - *MVSU*

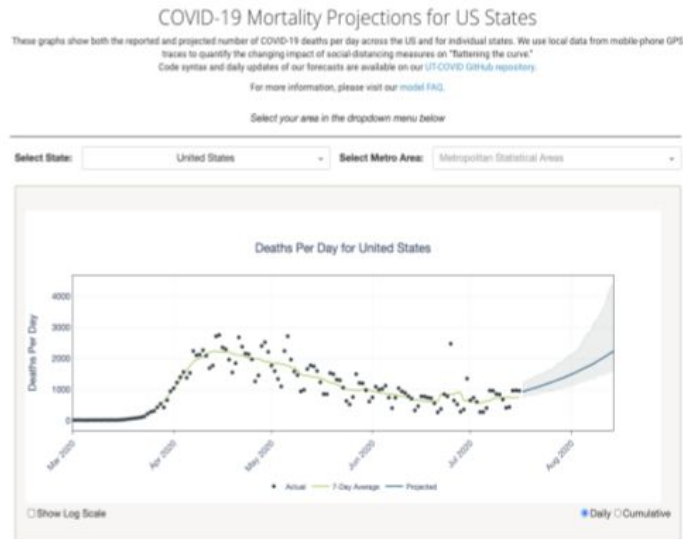


Mentors:
Joon Yee Chuah and Brandi Kuritz

Challenge: Create a visualization pipeline for a public data set

- Data visualizations are 🔥 right now
- Many are derived from public data sets, updated daily
- Some visualizations are made using Plot.ly Dash - a web-facing visualization tool that only requires Python

Scientists need a process to continuously retrieve, process and publish data that is *repeatable and resilient*



Interactive Visualization and Django Plugin Development for

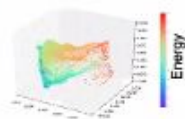
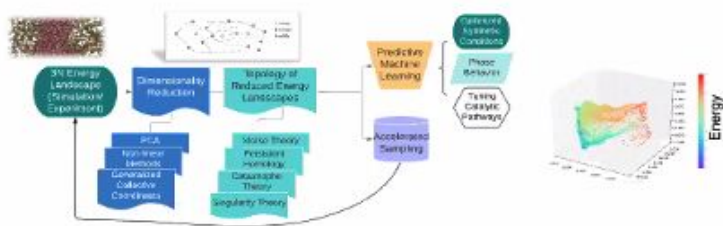


Data Science + Topology = Chemistry

Project



Mentor:
Sudhakar Pamidighantam



Experiment Summary Save Close

Landscape_plot

[Landscape.png](#)

Standard-Error

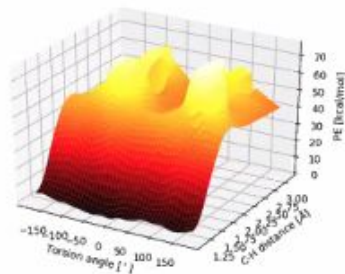
[AnalyzeTrajectory.stl](#)

Standard-Out

[AnalyzeTrajectory.stl.out](#)

Other Files

[Storage Directory](#)



Experiment Summary

[GudHi_Persistent_Barcode_Plot](#)

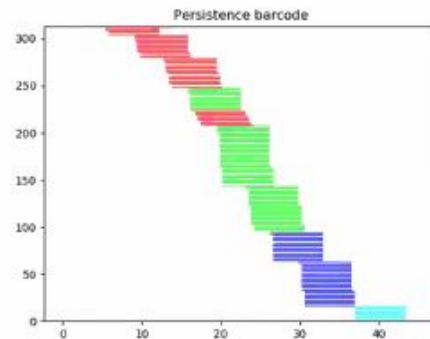
[GudHi_PersistentBarcode.png](#)

Standard-Error

[GudHi_Persistent_Barcodes.stl.stl](#)

Standard-Out

[GudHi_Persistent_Barcodes.stl.out](#)



JupyterLab and CloudyCluster on GCP (boyd + others)

Making a fancy jupyter notebook (jn) to submit general jobs
Or
Make a job that modifies parameters for WRF jobs



Or Jn to do other things in parallel if you have a good idea.
We have a basic Jn to start with that interacts with
CloudyCluster job submission and mgt via ccqclient.py .



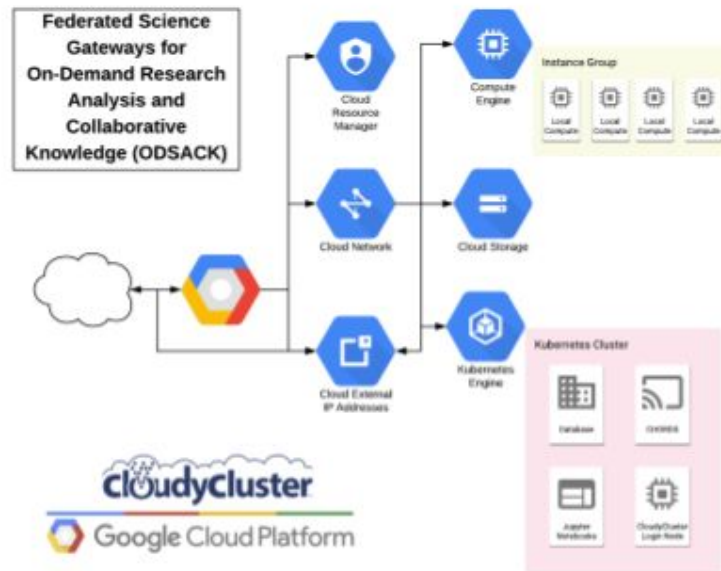
Cloudify Gateways: Federated Science Gateway for On-Demand Research Analysis and Collaborative Knowledge (ODSACK)

Principle Investigator:

Je'aime Powell

Texas Advanced Computing Center

The purpose of the ODSACK project is to test and develop a framework with a base set of software tools and configurations for small-scope research team requirements. The project will target several commonly implemented services including open authentication, collaborative coding with version control, data streaming to a database, visual dashboarding, and code-derived job submission to a computational cluster.



Supporting Specialists

- **Agbeli Ameko (UCAR)**
- **Christopher Lanclos (MVSU)**
- **Mona Wong-Barnum (SDSC)**



Deliverables

Posted to Slack PEARC20-General Channel before Presentations

Due Wednesday 7/29 by 6:00p(EST)/5:00p(CT)/3:00p(PT)

****If not posted 20pt automatic deduction from final judging score.***

Github Repository Link Posted to Slack #PEARC20-General Channel

- Source code
 - Including Comments
- PDF of presentation
 - Team members with pictures
 - Github Link
- README.md project description

Available Resources

- Google Compute Platform Credits
- CloudyCluster Access



Communications Channel



Slack Channel:

<https://cloudhpchack.slack.com>

Twitter:

@ccloudhack

Website:

<http://hackhpc.org>



Questions & Concerns

- Code of Ethics: <https://sciencegateways.org/engage/hackathon/hackathon-code-of-conduct>
- Hack HPC Site: <http://hackhpc.org>
- PEARC20 HackHPC Site: <https://jeaimehp.github.io/HackHPC-Pearc20>
- PEARC20 Conference Site: <https://pearc.acm.org/pearc20/>
- PEARC20 Zoom Session Links (Hackathon): <https://www.brella.io>
- SGCI URL: <http://sciencegateways.org/engage/hackathon>



The Hackathon Begins Next Week!

Monday July 27th @
1:00p(EST) / 12:00p(CT) / 10:00a(PT)

For more information join our Slack Channel:

<https://cloudhpchack.slack.com/>

