

SC22

3rd Annual Hackathon!

# HPC IN THE CITY: DALLAS

NOVEMBER 3-7, 2022



# Mentor Overview

cloudycluster  
by Omnibond™

**TACC**

XSEDE  
Extreme Science and Engineering  
Discovery Environment

g  
globus online

Google Cloud

SGCI  
Science Gateways  
Community Institute



# Introductions - Icebreaker



**Charlie Dey (TACC)**



**Je'aime Powell (TACC)**



# Agenda

**01** Hackathon  
Objectives and  
Student Outcomes

**02** Who are the  
students?

**03** Sample Project  
Timeline

**04** Deliverables and  
Resources

**05** Mentoring  
Information

- Expectations/Principles/  
Challenges

**06** Mentor Hack

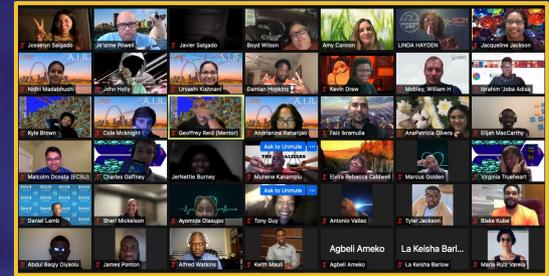


# The Objective of HPC in the City

The hackathon aims to harness the resources, skills, and knowledge found in the HPC community in an effort to provide applied exposure towards students from 2-4 year post-secondary educational institutions. In short, the hackathon will provide HPC skills and training while targeting problems that directly affect the participants. Develop knowledge about solutions to identified issues affecting Dallas through application of data analysis/presentation or management.

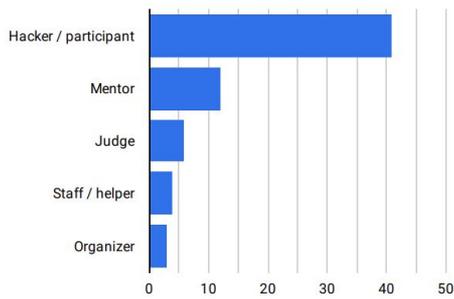
## Student Outcomes

- Increased familiarity with data science in the cloud
- Experience collaborative software engineering
- Develop professional communication skills

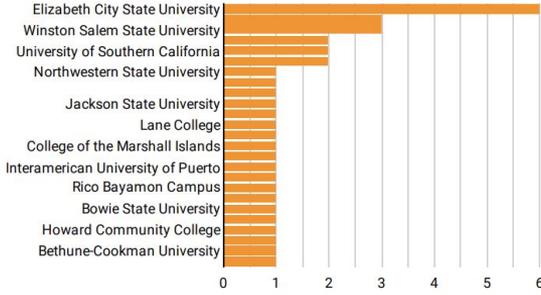
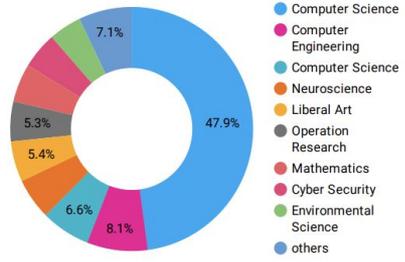
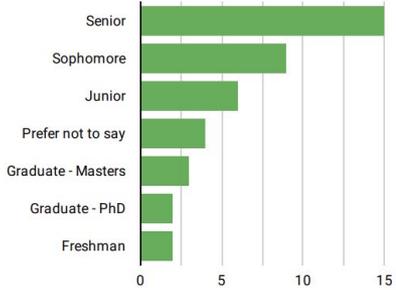
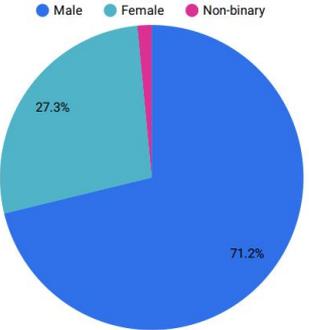


Total Registrations  
**66**

MSI Participants  
**42**



### Registration Dashboard



# Example Project Timeline

- Select a project
  - identify Milestones (Major/Minor)
  - identify possible logistical issues
- Deliver a project proposal presentation
- Regular check-ins
- Final presentation with deliverables:
  - Repo with code and data
  - Demonstration
  - Presentation
- Metrics for selecting a “winner”
  - Project Impact
  - Viability / Usefulness
  - The creativity of execution /Wow-effect
  - UX / Polish
  - Technical complexity
  - Collaboration
  - Presentation
  - Completeness

# Student Deliverables and Resources

## Deliverables:

- Source code Including Comments
- PDF of presentation
  - Team members with pictures
  - Use of HPC technology in the project
  - Project impact to the community
- Github Repository Link
  - README.md with project description

## Resources:

- Google Cloud (Provided Credits)
- Cloudy Cluster
- Most Commonly Used
  - Python
  - Jupyter Notebooks
  - Node.Js (JavaScript)
  - Repl.it (Collaborative Environment)
  - HTML
- Discord - <https://discord.gg/ARq3vwWafF>



# Mentor Deliverables

- **[During Kick-off Meeting] 1 Slide-1 Minute describing your idea for a project**
  - Elevator pitch for your project
  - Student teams will use this to determine with which project they would like to work during the hackathon.
  - **[Pro Tip:]** Keep it short ( $\leq 2min$ ) and show your personality when presenting
- **[During Event] 1 minute or less Video introducing your team**
  - Include all team members, team name, and team project
  - Used for initial Viewer's Choice award presentation
  - Presented during the morning "Check In Session" of the final day.
  - *A prize will be awarded to the best video!*



## Example Video

<https://youtu.be/CLqSTrCt6UU>

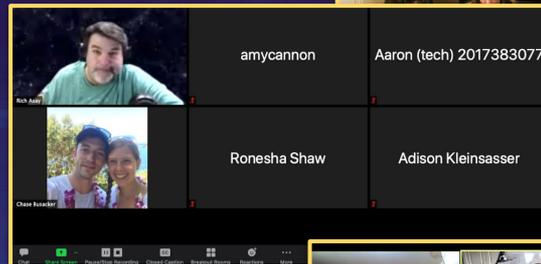
# What Can You Expect as a Mentor?

Your mentoring will be iterative  
Your students will experience challenges,  
and so will you as a mentor  
You can't solve everything in 96 hours!  
*(No really you CAN NOT!!!)*



# What Challenges Does a Mentor Solve?

- Imbalance in participation
- Project direction isn't viable
- Students are reluctant to drive the process
- Students just want the answers
- Morale decreases over time
- Students do not communicate



# Fundamental Principles of Mentoring

- Observe the students, not the work.
- Be present, but not omnipresent.
- Use critical questions, not criticisms.



# Your Task Today

Choose a Mentor Challenge, and describe a strategy you will use to address it

- What is the problem?
- What technique are you going to develop or use to tackle the problem? (one sentence)
- Tell a story of ideally, how you think this will play out
- Collaborate and report out, with a presentation visual



# Example Technique

**Problem:** How do you get feedback from your students, when they might be reluctant to criticize the type of help you've given them?

**Answer:** Like, Wish, Wonder!

**Describe:** Students write a short one sentence reflection about their learning experience, where they describe something they liked, something they wished, something they wondered. They will take turns sharing. All students participate. In doing so, students are given an opportunity to prepare an answer rather than being “put on the spot”, and any deltas come are reframed as “further questions” rather than frustrations



# Mentor Mini-HACK (7 minutes)

## Task:

From the “Common *Issues when Mentoring*” box pick one problem as a group and develop a technique to resolve it.

## Deliverable:

One (1) slide and present the developed technique in one (1) minute.

### Common Issues when Mentoring:

- Imbalance in participation
- Project direction isn't viable
- Students are reluctant to drive the process
- Students just want the answers
- Morale decreases over time
- Students do not communicate



# Mentoring Techniques - Did you notice?

1. Getting to know your participants
2. Project purpose/goals
3. Gamification
4. Scoping the project
5. Student guidance/counseling
6. Student project roles and responsibilities
7. Adjusting to student skill levels
8. Critical questioning



# Like, Wish Wonder this Training!

Now to guide you through a post hack reflection using the “Like, Wish, Wonder” technique.

**Each person gives:**

1 - Like & 1 - Wish and/or Wonder

Audience if you agree, give the “snaps” or 



# Questions and Concerns

Next Training Sessions:

- **GitHub/Discord [11/2/22]**
- **CloudyCluster [11/3/22]**

## Schedule:

<https://hackhpc.github.io/HPCintheCity22/schedule>

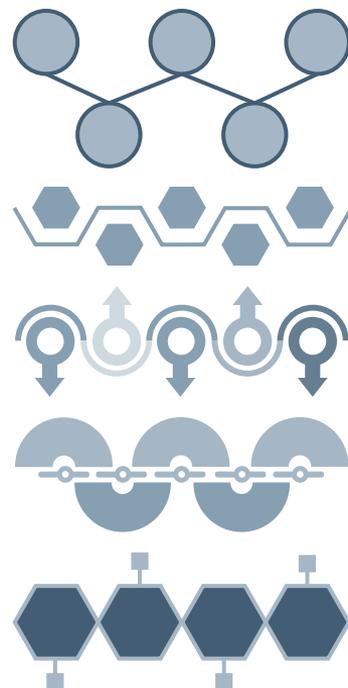
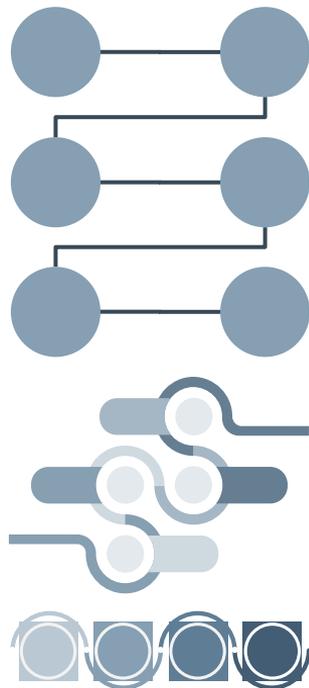
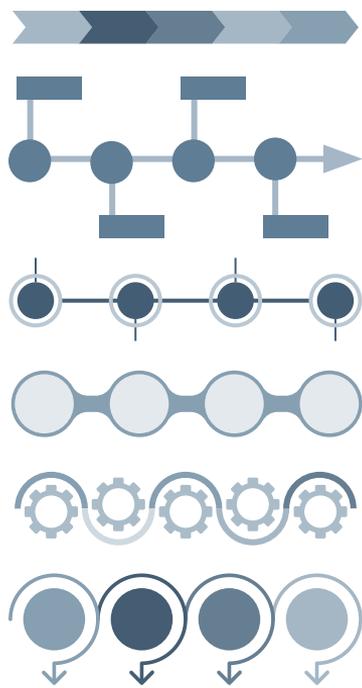
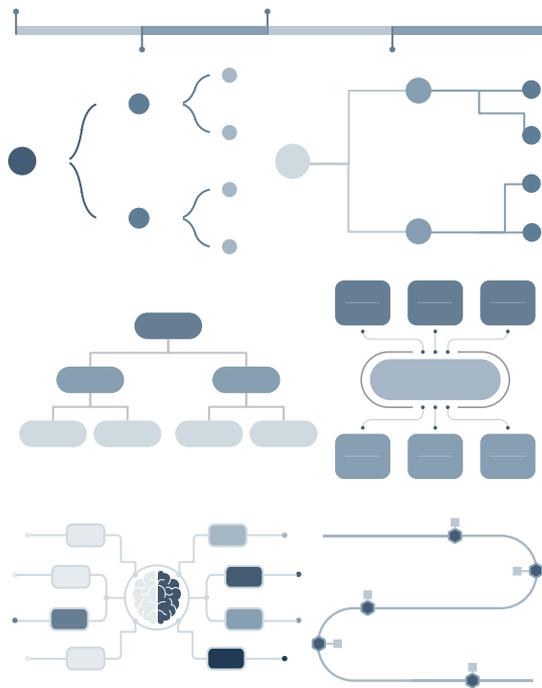
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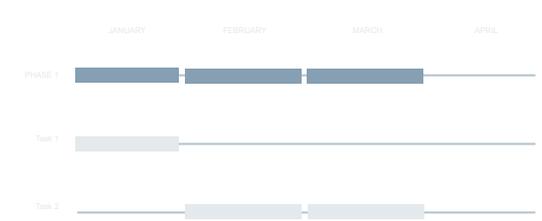
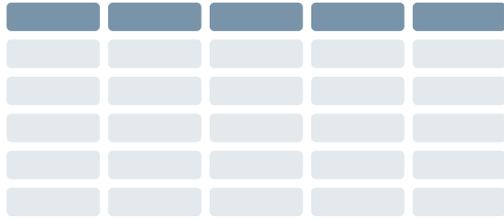
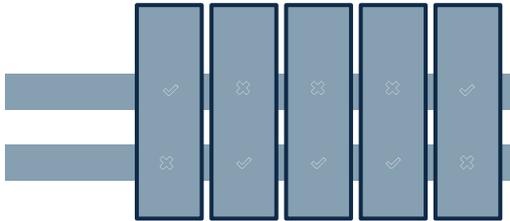
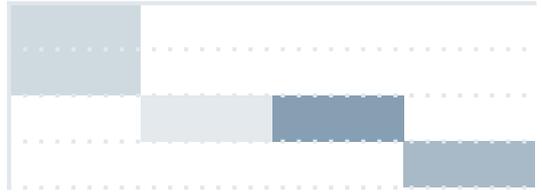
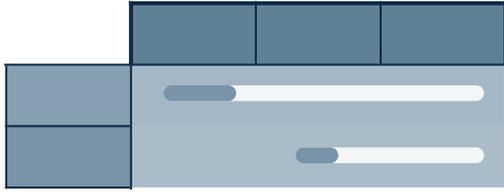
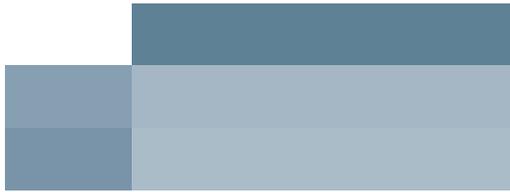
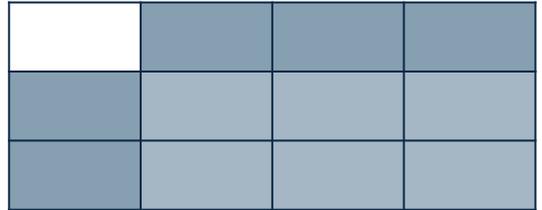
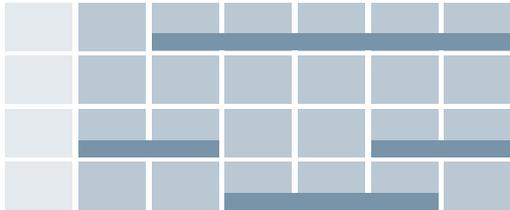
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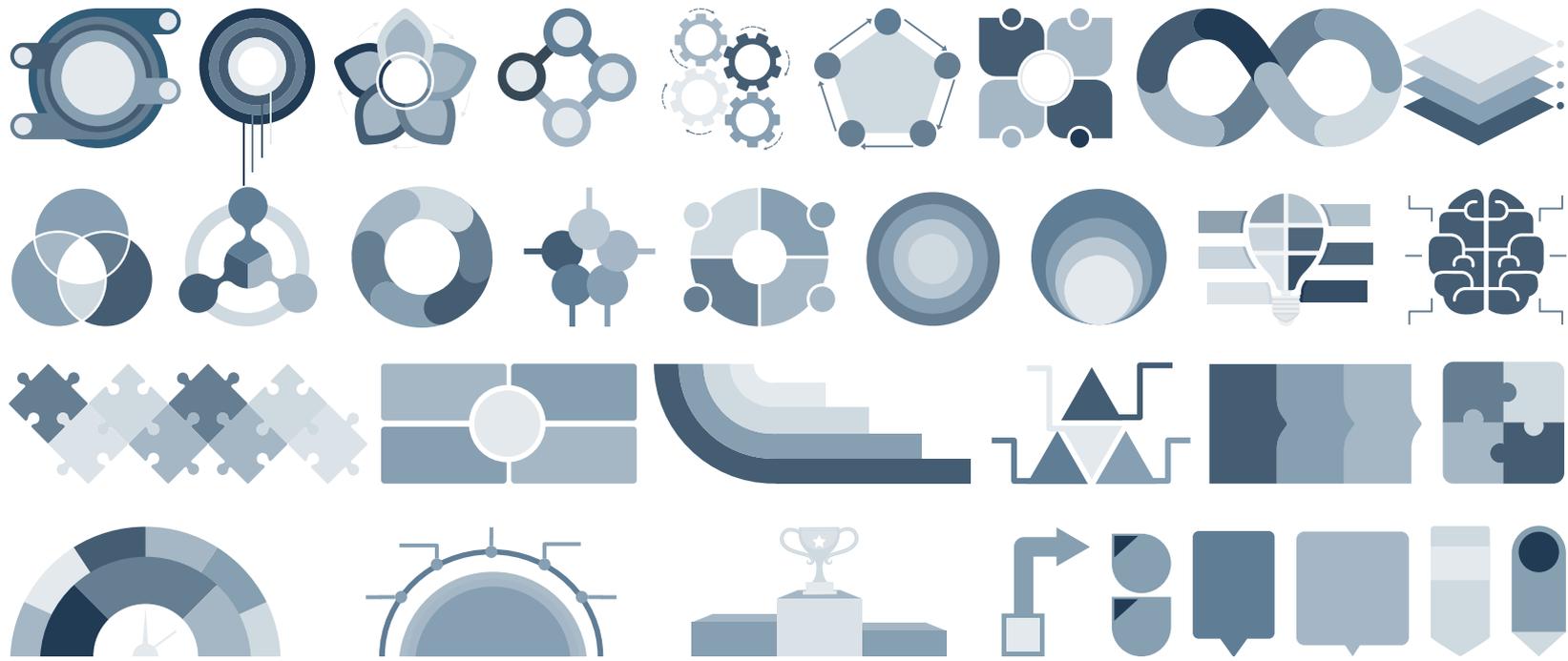
Je'aime Powell (TACC) - [jpowell@tacc.utexas.edu](mailto:jpowell@tacc.utexas.edu)

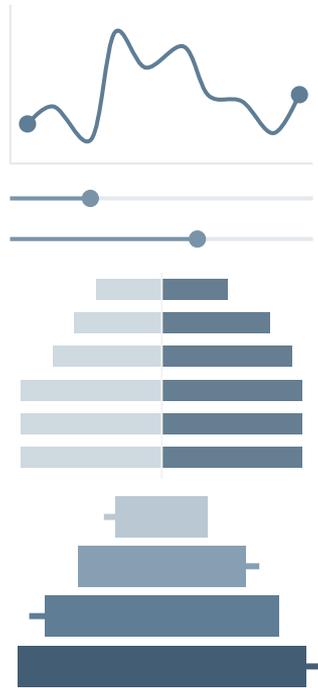
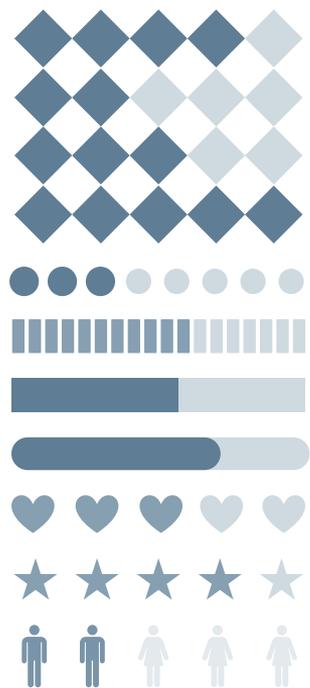
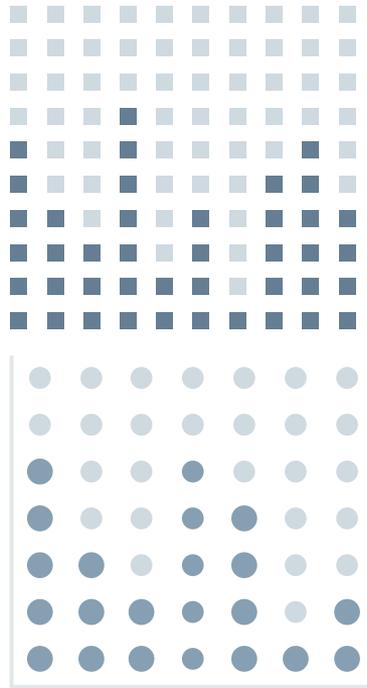












# ...and our sets of editable icons

You can resize these icons without losing quality.

You can change the stroke and fill color; just select the icon and click on the paint bucket/pen.  
In Google Slides, you can also use Flaticon's extension, allowing you to customize and add even more icons.



## Educational Icons



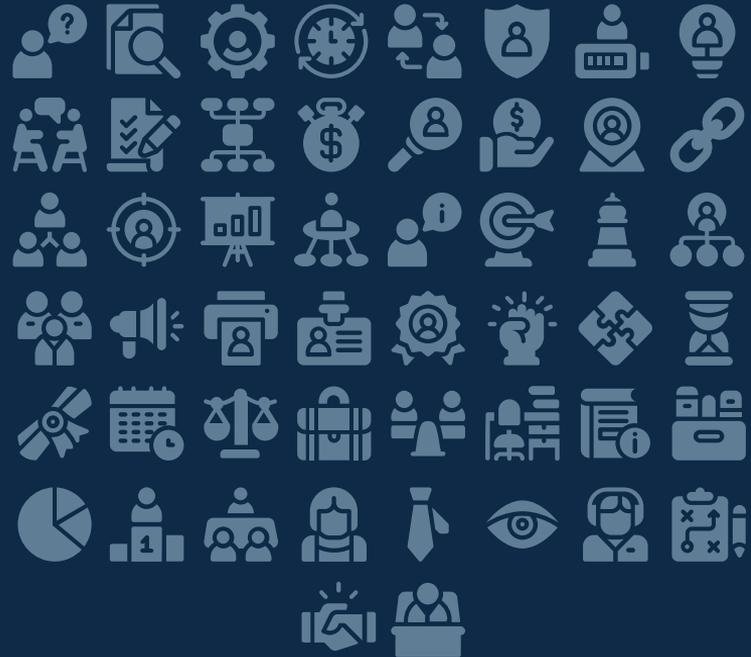
## Medical Icons



# Business Icons



# Teamwork Icons







# Nature Icons



# SEO & Marketing Icons



