

SFU

SIMON FRASER  
UNIVERSITY

TACC  
TEXAS ADVANCED COMPUTING CENTER

aws



# HACK THE THREAT 23: *Mentor Training*

February 28, 2023

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



# ORGANIZERS

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



## Fred Popowich

Simon Fraser University's Big Data Hub - Burnaby, BC (Canada)

## Je'aime Powell

Texas Advanced Computing Center - Austin, TX (USA)

## Kelly Nolan

Simon Fraser University's Big Data Hub - Burnaby, BC (Canada)

## Melyssa Fratkin

Texas Advanced Computing Center - Austin, TX (USA)

## Niall Gaffney

Texas Advanced Computing Center - Austin, TX (USA)

## Sadaf Sadeghi

Simon Fraser University's Big Data Hub - Burnaby, BC (Canada)



# Introductions:Icebreaker



*Je'aime Powell (TACC)*

# AGENDA

1. Hackathon Objectives
2. Who are the Participants?
3. Project Timeline
4. Deliverables and Resources
5. Mentoring Information
6. Mentor Hack

HACK THE THREAT 23  
[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



Join our Discord Server  
<https://discord.gg/Y927CbuHSv>

# *Hackathon Objectives and Student Outcomes*

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



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 and create solutions to identified Environmental, Cybersecurity, and/or Social Threats through application of data analysis/presentation or management.

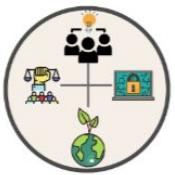
## **Student Outcomes**

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

# Who are the Participants?

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



## Hack the Threat 23: Registration Dashboard

SFU  
SIMON FRASER  
UNIVERSITY

TACC  
TEXAS ADVANCED COMPUTING CENTER

aws

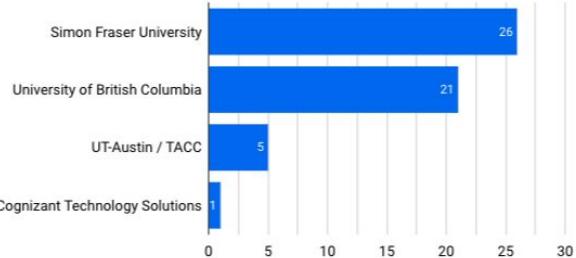


Total Registrations  
53

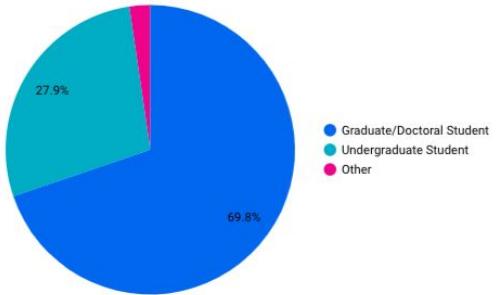
Hackers / Students  
43

Mentors / Co-Mentors  
6

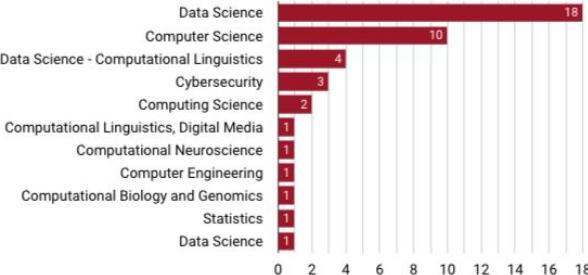
## School/Organization



## Role at School/Organization



## Major or Field of Study/Expertise



# Project Timeline

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



## Event Simplified Schedule

- **Thursday, 3/2/23**
  - Kick-Off
    - Mentor Pitches & Team Formation
- **Friday, 3/3/23**
  - Morning Checkin - Team Introductions
  - Afternoon Checkin - Team Goals
- **Saturday, 3/4/23**
  - Morning Checkin - Team Status
  - Afternoon Checkin - One-Day Progress
- **Sunday, 3/5/23**
  - Morning Checkin - Team Status
- **Monday, 3/6/23**
  - Morning Checkin - Mentor Trailers
  - Final Presentations

**~ 96 hrs Total Time**  
**- ~7 hrs Planning / Checkins**  
**- ~30 hrs Sleep/Rest**  
**~59 hrs Work Time**



# **Project Deliverables and Resources**

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



## **Deliverables:**

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

## **Resources:**

- Amazon Web Services (Provided Credits)
- Commonly Used:
  - Python
  - Jupyter Notebooks
  - Node.Js (JavaScript)
  - Repl.it (Collaborative Environment)
  - HTML\CSS
- Discord -  
<https://discord.gg/Y927CbuHSv>



# Mentor Deliverable: Team Trailer

Due Monday 3/6/23 Morning Checkin

- No more than 1.5 minutes long
- Include Team Goal
- Team Members
- No licensed music (the videos are going on YouTube and can be striked)

**Tip:** Keep it simple. View this as a gift from the Mentors and Co-mentors to your respective groups.

HACK THE THREAT 23  
[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



HPC in the City: St. Louis HACKATHON

Team Trailer:  
**Flood of Code**

# What Can You Expect as a Mentor?

- Your mentoring will be iterative
- 50% - 70% of your team's efforts **will** be spent formatting the dataset before you can use it 😱
- Your students will experience challenges, and so will you as a mentor (Tears can and have happened, 😢)
- You can't solve everything in 30 hours! (No really you CAN NOT!!!)

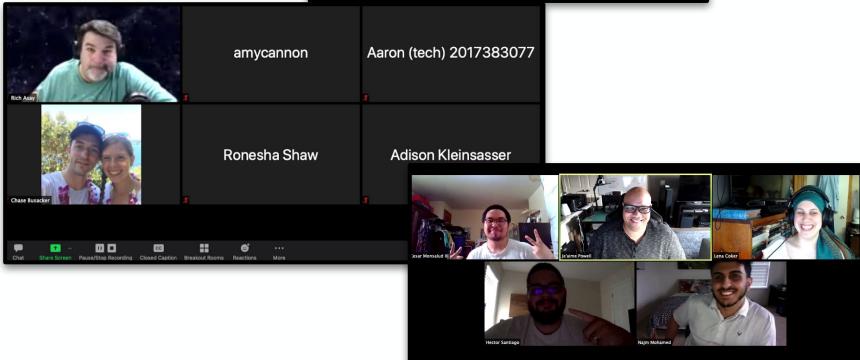
HACK THE THREAT 23  
[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



# 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

HACK THE THREAT 23  
[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



# Fundamental Principles of Mentoring

- Observe the students, not the work.
- Be present, but not omnipresent.
- Use critical questions, not criticisms.
- Be sure both you and the students take breaks and rest.

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)





# Your Task Today

Choose a “Common 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)**

**HACK THE THREAT 23**

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



### **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*

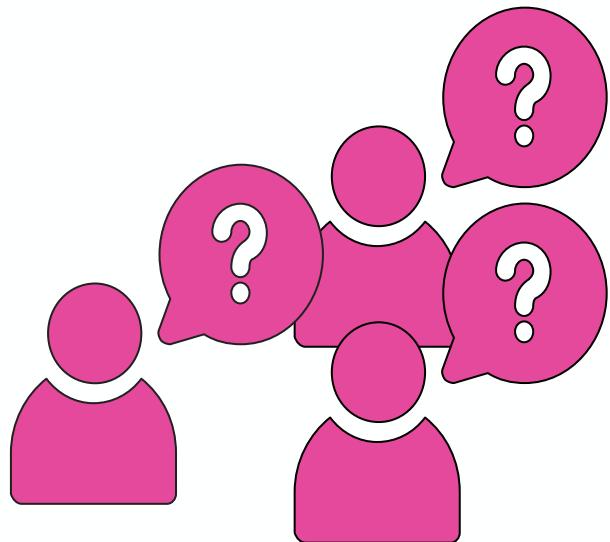
## *- Did you notice?*

HACK THE THREAT 23

[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



- Getting to know your participants
- Project purpose/goals
- Gamification
- Scoping the project
- Student guidance/counseling
- Student project roles and responsibilities
- Adjusting to student skill levels
- Critical questioning



# *Like, Wish Wonder this Training!*

HACK THE THREAT 23  
[HTTPS://HACKHPC.GITHUB.IO/HACKTHETHREAT23](https://hackhpc.github.io/hackthethreat23)



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

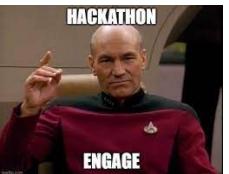
Audience if you agree, give the “snaps” or 



# QUESTIONS ??

Next Sessions:

- Kick-Off [3/2/23]



Schedule:

<https://hackhpc.github.io/HacktheThreat23/schedule>

Presenter Contact Information:

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

