HackHPC@ADMI22 | Training Session

Google Cloud

cloudycluster by Omnibond

XSEDE
Extreme Science and Engineering Discovery Environment

VOLTRON DATA

TACC
TEXAS ADVANCED COMPUTING CENTER

SGCI
Science Gateways Community Institute

HackHPC@ADMI
2022
High Performance Computing and Gateways 2022 Symposium
www.admiusa.org

Join the HackHPC@ADMI22 Discord using this QR Code!

GitHub and Discord

https://hackhpc.github.io/ADMI22/

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Agenda

1. Introductions
2. Hackathon Objective
3. Deliverables and Resources
4. General Information
5. Discord Basics
6. GitHub (Web) Basics

https://hackhpc.github.io/ADMI22/

Organizers

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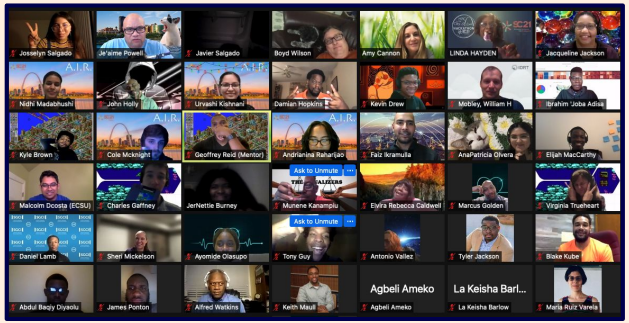
The Objective of HackHPC@ADMI

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 St. Louis 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



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Student Deliverables and Resources

Deliverables:

- Source code Including Comments
- PDF of presentation
  - Team members with pictures
  - Use of HPC technology in the project
- 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/ARg3vwWafF

General Information (the 3 T's)

- **Teams**
  - 4-5 Students
  - 1 Primary Mentor
  - 1 Technical Mentor
- **Time**
  - March 31st - April 4th
    - 3/31 @~7pm ET Event Start
      - "*The Draft*"
    - 4/[1-4] @ 11am ET & 7pm ET- Checkins
    - 4/4@6pm ET-Final Presentations

- **Topic Examples**
  - Data Analysis of COVID 19
  - Economic disparities and their effects on college participation
  - Genomics, Molecular Dynamics, or Weather Modeling in the Cloud.
  - Social Justice
  - AI-based Crowd Status
  - Public Data Management
  - Graduation Rates
  - Broadband Access
  - Insurance vs. Public Health Resilience

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Communication Platforms

https://hackhpc.github.io/ADMI22/

Discord - Basics

HackHPC Discord Server:
https://discord.gg/ARg3vwWafF

Functions:

- Messages
  - Direct and Group
- Video Conference
  - Screen Share
- File Exchange

Join the HackHPC Discord using this QR Code!

Discord Channels and Tips

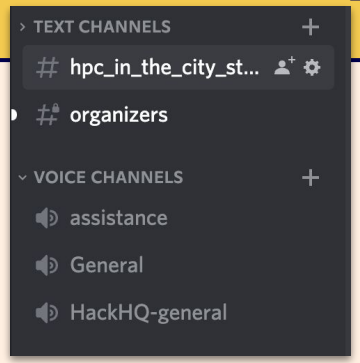
Important Channels

1. #general
2. #assistance (voice channel)
3. HackHQ-general (voice channel)
4. Custom team channel

Tips

1. Browse for a channel
2. Create Group
3. Conference

1.



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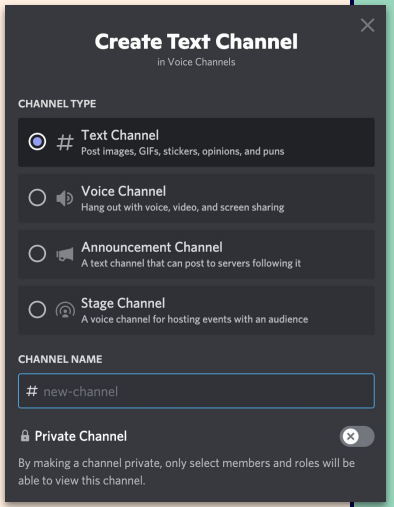

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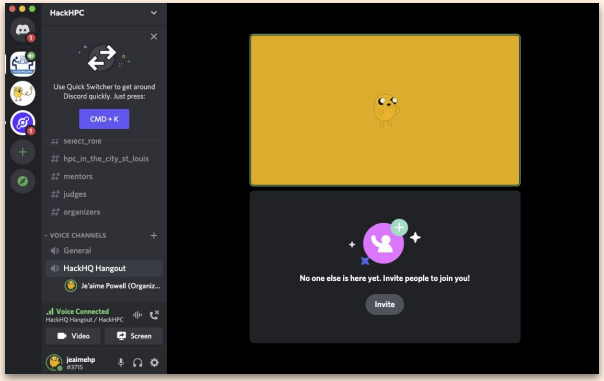

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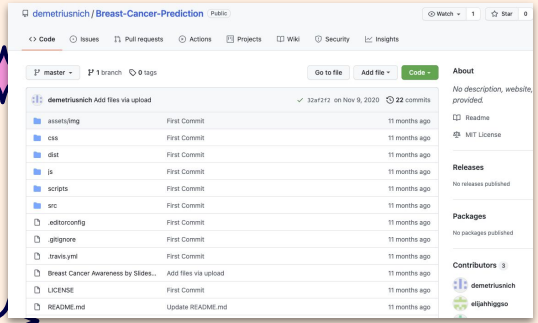
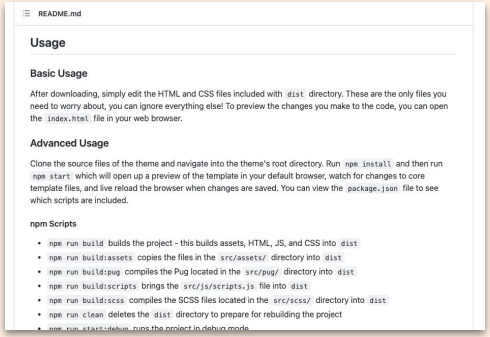
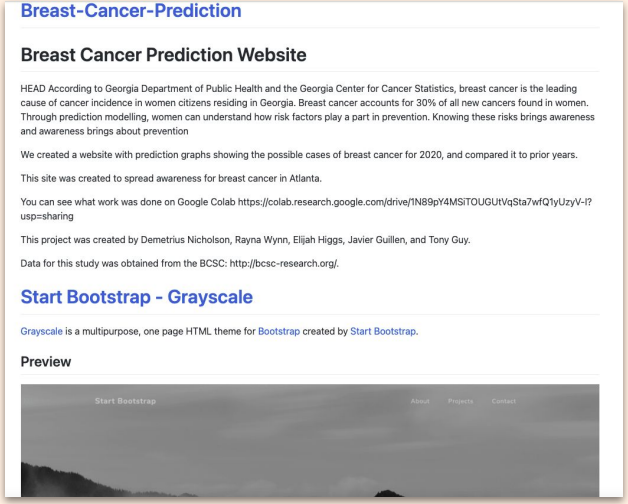
GitHub (Web) - Basics

Note: A GitHub repository will be required of all teams when reporting out during final presentations. (Examples http://hackhpc.org/pasthacks/)

[HINT] GitHub Pages is a powerful, free feature!







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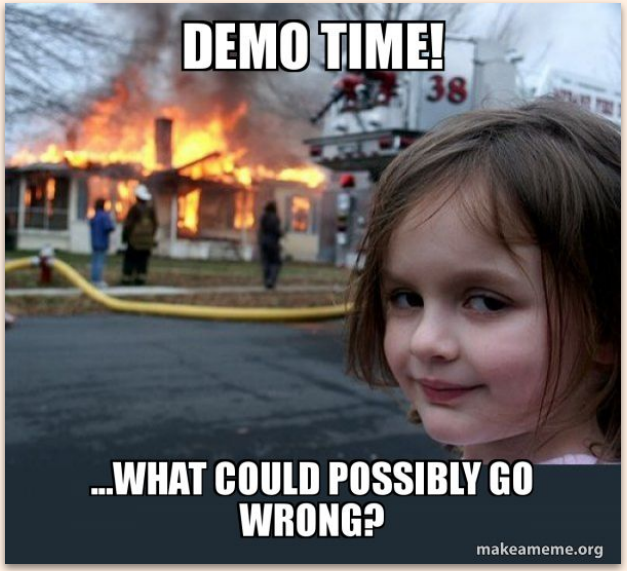
Repository Creation and README.md

Demo Time!!

Example GitHub Repo:
https://github.com/jeaimehp/Git-Intro



Questions and Concerns

Next Training Sessions:

- **Hackathon Beginning to End -** [*6/25/22*]
- **Data to Dashboard -** [*6/26/22*]
- **Google / CloudyCluster -** [*6/26/22*]

Schedule:
https://hackhpc.github.io/ADMI22/schedule.html

Presenters Contact Information:

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