



Google Cloud



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# HackHPC@PEARC21

## Slack and GitHub

## Training

# PEARC21



**CHARLIES ANGELS**

Goal: Develop a tool for providing basic statistical analysis and simple visualizations on submitted datasets

- Chi squared analysis
- P-values
- Machine learning for identifying areas of focus, i.e. statistical outliers

Meet the Angels

Lena Coker	Hector Santiago III	Charlie Dey	Cesar Montalud III	Naam Mohamud

Logos: pandas, jupyter, DESIGN SAFETY, matplotlib

# Agenda

- Introductions
- Hackathon Objective
- Deliverables and Resources
- General Information
- Slack Basics
- GitHub (Web) Basics



Presenter: Je'aime Powell

# Organizers



Alex Nolte - *University of Tartu*  
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Boyd Wilson - *Omnibond*  
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Linda Hayden - *ECSU*  
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# The Objective of HackHPC

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 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



# Team Deliverables and Resources

## Deliverables:

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

## Resources:

- Mentors/Specialists
- Slack (Ad-Hoc Communication)
- Google Cloud (Provided Credits)
- Cloudy Cluster
- **Most Commonly Used:**
  - Python
  - Jupyter Notebooks
  - Node.js (JavaScript)
  - HTML
- Datasets



# General Information (the 3 T's)

- **Teams**

- 4-5 Students
- 1 Primary Mentor
- 1 Specialist/Staff

- **Time**

- July 8th - 12th
  - 7/8@~6pm ET Event Start
    - Team formation
  - 7/[9-12] @ 11 ET & 6pm ET- Checkins
  - 7/12@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



# Communication Platforms



# Slack - Basics



**Hackathon Slack Team:** [Cloudhpchack.slack.com](https://cloudhpchack.slack.com)

## Functions:

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



Join the  
CloudHPCHack  
Slack Team using  
the QR Code above!





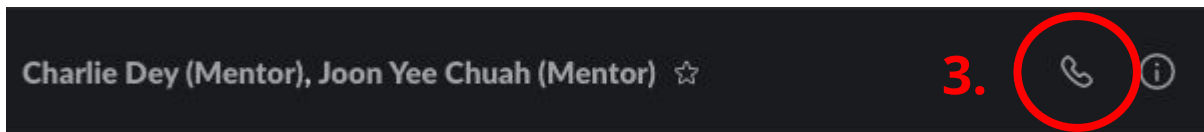
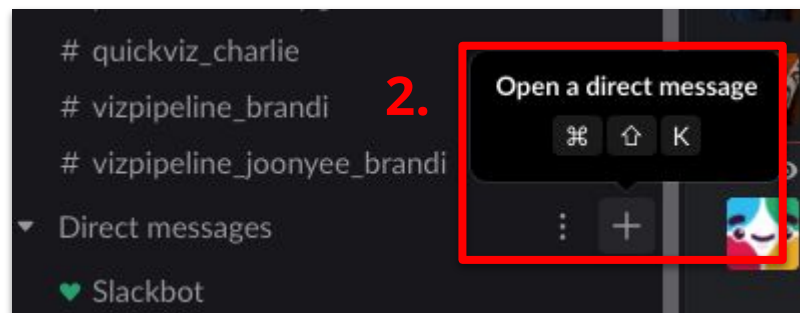
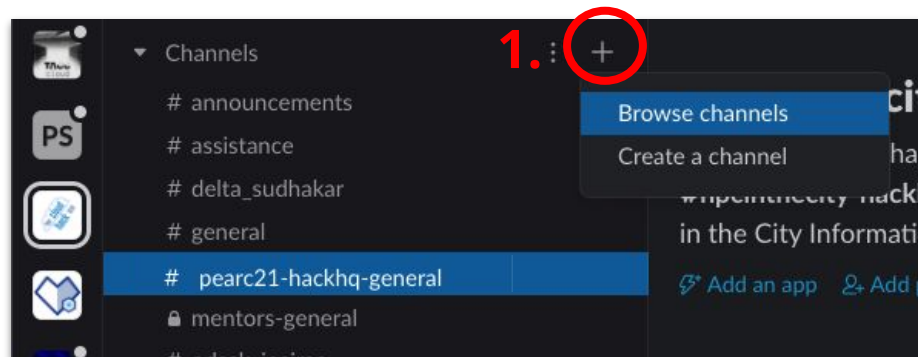
# Slack Channels and Tips

## Important Channels

- #pearc21-hackhq-general
- #assistance
- Custom team channel

## Tips

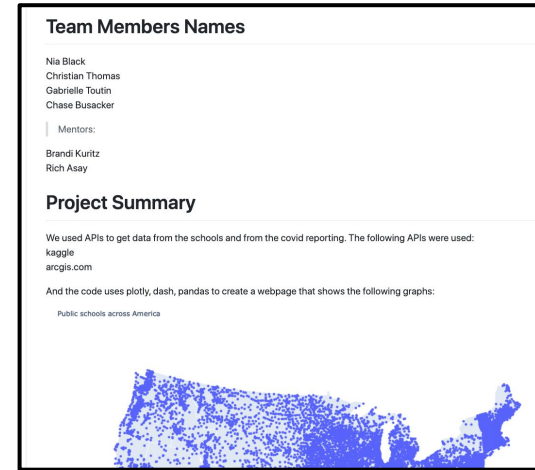
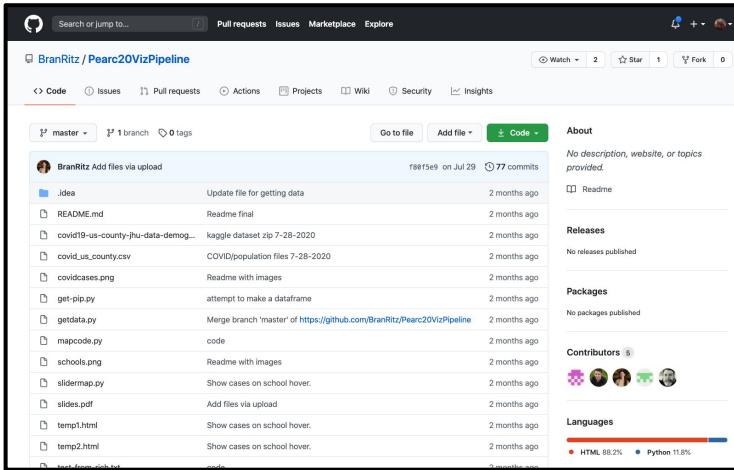
1. Browse for a channel
2. Create Group
3. Conference





## GitHub (Web) - Basics

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



# Repository Creation and README.md

**Demo Time!!**



# Questions and Concerns

# PEARC21

## Contact Information:

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& TACC)*

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<http://hackhpc.org/hpc/>



HackHPC.org



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