intel

cloudycluster by Omnibond

globus online

SGCI

Google Cloud

sighpc

TACC
TEXAS ADVANCED COMPUTING CENTER

XSEDE

HPC in the City: St. Louis

SC21
St. Louis, MO | science & beyond.

HACKATHON

Beginning to End Project Example

Join the HPC in the City Discord using this QR Code!

Google Cloud

HACKATHON

Beginning to End Project Example

Agenda

- Introductions
- Hackathon Objective
- Deliverables and Resources
- General Information
- Beginning to End Project Example

Presenter: Je'aime Powell

Organizers

Linda Hayden - *ECSU*
haydenl@mindspring.com

Boyd Wilson - *Omnibond*
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Amy Cannon - *Omnibond*
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Je'aime Powell - *TACC*
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Alex Nolte - *University of Tartu*
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Josh Kissel - *Omnibond*
josh@trafficvision.com

The Objective of HPC in the City: St. Louis

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

Student Deliverables and Resources

Deliverables:

- **Source code Including Comments**
- **PDF of presentation**
  - Team members with pictures
  - Use of HPC technology in the project
  - Regional (St. Louis) implications of 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.com/invite/rSXasYKDwE

Join the HPCHack Discord using this QR Code!

General Information (the 3 T's)

- **Teams**
  - 4-5 Students
  - 1 Primary Mentor
  - 1 Specialist/Staff
- **Time**
  - November 4th - 8th
    - 11/4@~6pm ET Event Start
      - Team formation
    - 11/[5-8] @ 11 ET & 6pm ET- Checkins
    - 11/8@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

Presenter: Josselyn Salgado

Beginning to End Project Example

The Beginning to End Project

St Louis Hackathon Intro

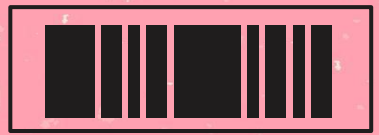
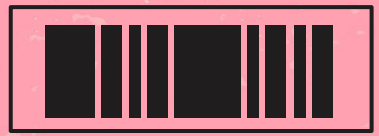


Table of Contents

- **Brief Introduction:**
  - Who I am
- **Expectations**
  - Where & How do I start?
    - (Program Usage)
- **Collaboration**
  - Student, Staff, & Mentor Inneraction
- **Activities**
  - Ice Breakers, One Minute Update, & Quick Check In's
    - Prizes
- **Final Presentations**

~ Crucial Message towards Staff & Mentors ~



Contact Info

Do you have any questions?

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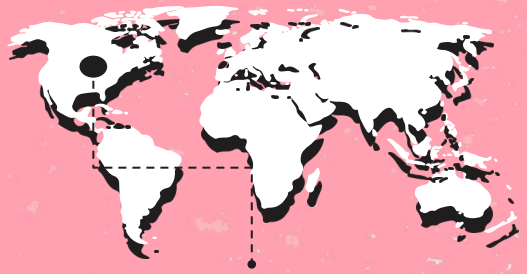
+1 (224) 308-3865
https://www.linkedin.com/in/josselynsalgado

Origin



Outside the Chicago Land Area, IL, USA

https://www.linkedin.com/in/josselynsalgado

Our Services

"You Have Believe In Yourself When No One Else Does- That Makes You A Winner Right There"

– Vensu Williams

Characteristics

Consentiency

When feeling Overwhelmed. Never Give Up!

Strong-Minded

Breathe throughout the circumstances (Stay Calm)

Positive

Continue to stay Positive ! Say I will do this! I can complete this!

Josselyn Salgado (Josie)

Student Mentor

Science Gateway Community Institute

College Lake County
Connect to Your Future

Educational Field

- Currently Working towards my Associates in Business
- School Involvement
  - Vice President Environmental Club & International Club
  - Pr & Treasure for Lation Alliance

Who Am I?

Languages

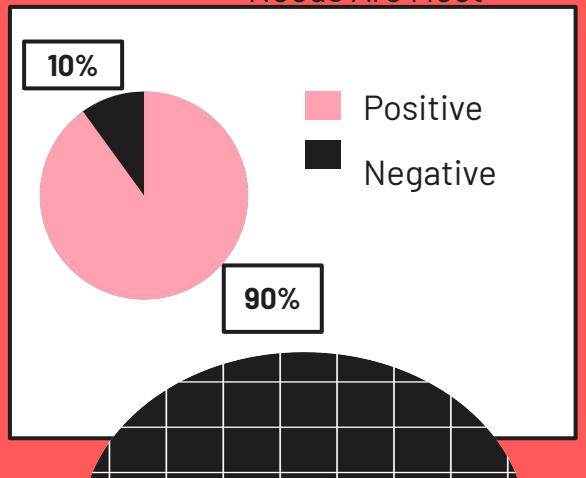
English & Spanish

Motivated

Always Doing My Best

Considerate

Ensuring That Everyone Needs Are Meet



01 — **Associate In Business**

Graduate with My Associates!!

02 — **Real Estate**

Obtain My Real Estate License!

03 — **Business**

Open Up My Future Bussines

04 — **Help**

Help As Many People As I Can!

Expectations

Where & How Do I Start?

Production Timeline:

- ❑ Project Scarp Up
- ❑ Proposal Idea, Problem & Solution
- ❑ Transitioning into Forming Your Team
- ❑ Distributing Roles & Technical Skills
- ❑ Frequent Check ins & Time Management

Expectations

Where & How Do I Start?

Project Scarp Up

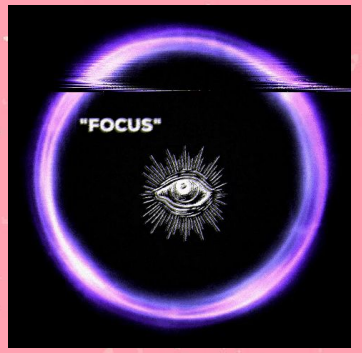
- Implementation of the city we are basing it in
- Technical Skill Level
- Be Confident

Expectations

Where & How Do I Start?

Past Project Example

- **FOCUS**
  - A Project that focused on AI
    - A video inputed & then analyzed the emotions(such as fear, distrtest, etc) & Twitter tagging the emotion of the video & posting it.
- Usage~Docker, Twitter, Linux, Github, Graphene Desing, Google Co-Lab, Presentation Skills, & Public Speaking Skills.
- All Kinds of Technical Background



Expectations

Where & How Do I Start?

Proposal Idea, Problem & Solution

- Location Theme Of Project & Why It Represent The City
- Serviceable in The Area? (Try Checking the Data)
- How Can It Improve & Be Beneficial For The Citizens Surrounding the Area?
- Is It Possible? & If It Is, Can It Be More Than Just A Hackathon Project in the Future?

Expectations

Where & How Do I Start?

Transitioning into Forming Your Team

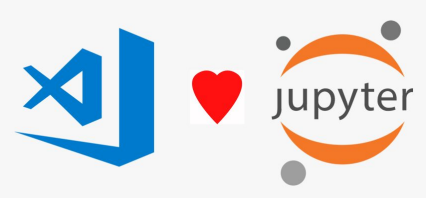
- Introduced with Teammates Personalities
- Understanding What Skill Set You Have as A Team
  - Is your Team Well Balanced?
- Does Your Team Understand What They are Doing & Are they Engaging (Such as Asking Any Questions or Comments?)
- Understanding What Skill Set You Have as A Team

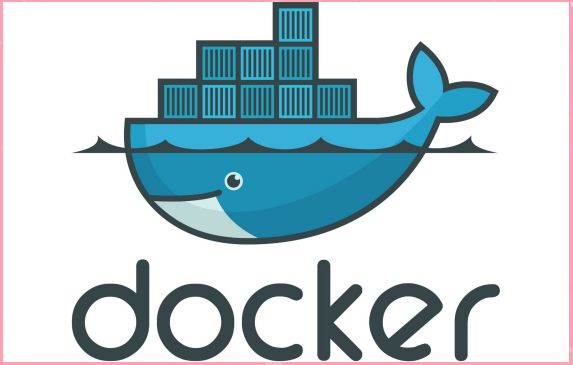
Expectations

Where & How Do I Start?

Distributing Roles & Technical Skills

- **Program Usage**



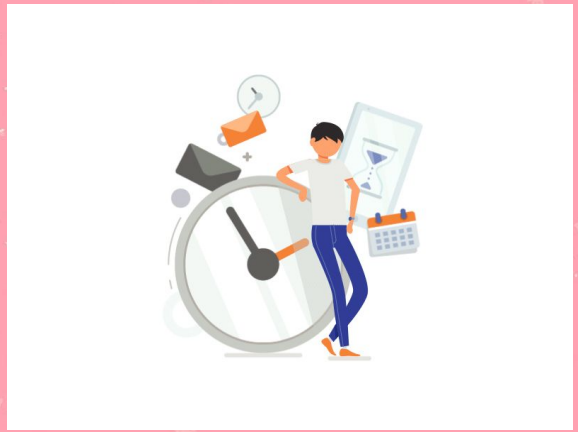


Expectations

Student, Staff, & Mentor Inneraction

Frequent Check ins & Time Management

- Ensure you are staying at a steady pace!
- Daily Check Ins will occur!
  - 1 Minute Time Frame
- Mini Challenges



Collaborations

Where & How Do I Start?

Production Timeline:

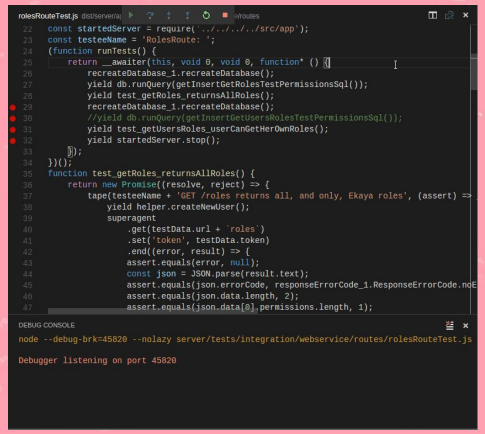
- ❑ Stabilization Throughout the Hackathon
- ❑ Proposal Idea, Problem & Solution
- ❑ Transitioning into Forming Your Team
- ❑ Distributing Roles & Technical Skills
- ❑ Frequent Check ins & Time Management

Collaborations

Student, Staff, & Mentor Inneraction

Stabilization Throughout the Hackathon

- ➢ Start to Form A Foundation For Your Project
- ➢ Figure Out What Programs You Will Be Using
- ➢ Take Apart Tasks One By One & Distribute Evenly
- ➢ Try Test Running it



Collaborations

Where & How Do I Start?

Production Timeline:

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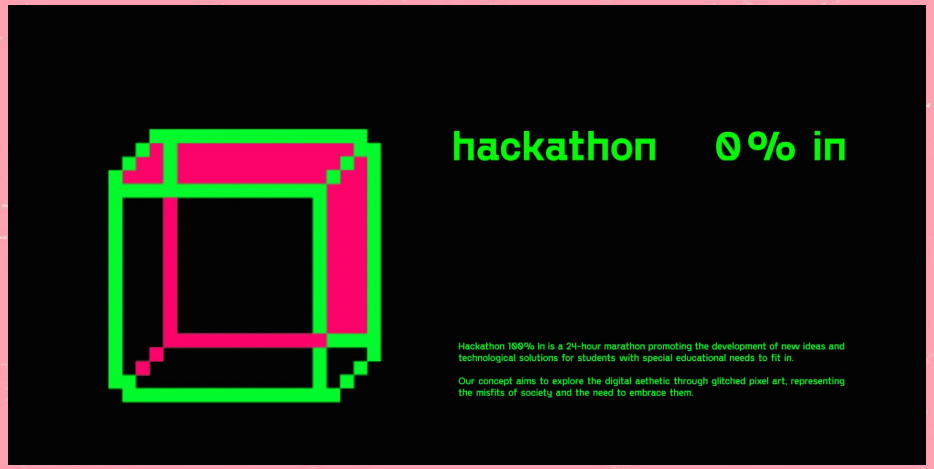
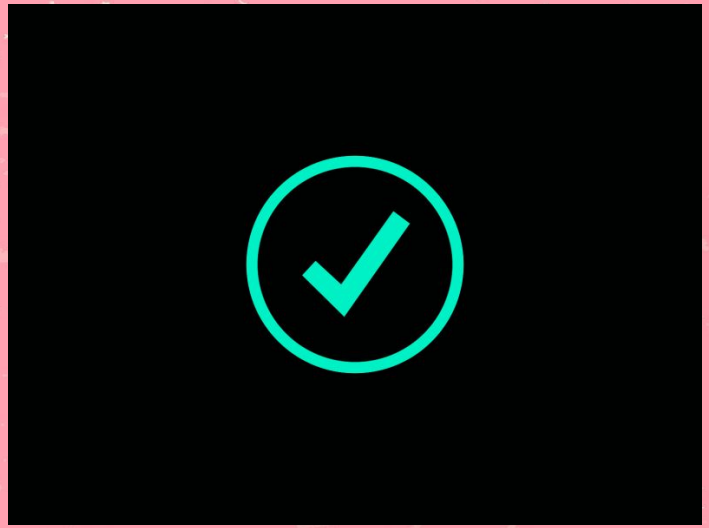


Activities

Ice Breakers, One Minute Update, & Quick Check Ins

Content Topics

- ❑ Pop Up Ice Breakers
- ❑ One Minute Updates
- ❑ Quick Check Ins
  - ❑ What To Expect



Activities

Ice Breakers, One Minute Update, & Quick Check Ins

Pop Up Ice Breakers

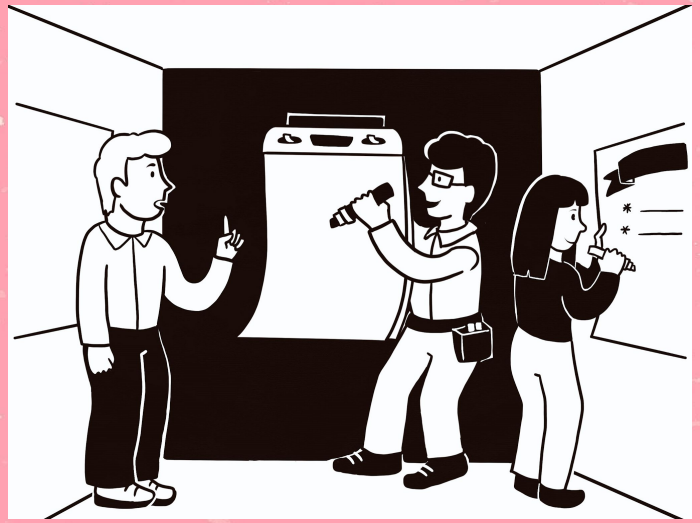
- Short Warm Ups to introduce Teams Together

Activities

Ice Breakers, One Minute Update, & Quick Check Ins

One Minute Meeting:

- Effective One Minute Form Team Meeting



Activities

Ice Breakers, One Minute Update, & Quick Check Ins

Quick Check Ins:

- ❑ Progressed Filled Slides
  - ❑ Containing Any Progress Made

Activities

Ice Breakers, One Minute Update, & Quick Check Ins

Prizes:

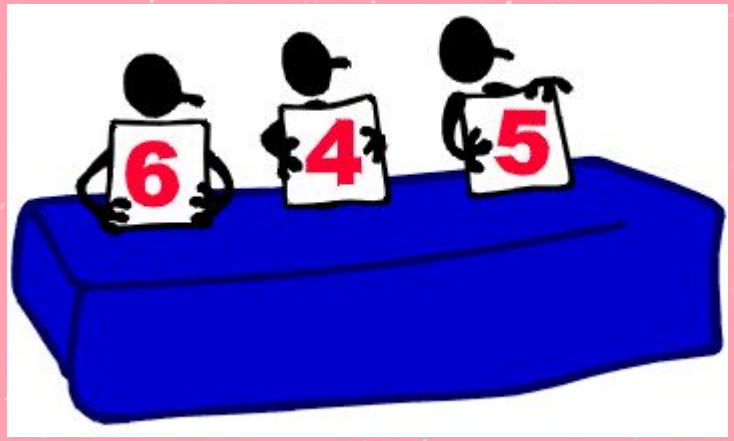
- Surprise gifts!
  - Knowledge of Wht They Are is unknown

Conclusion

Final Presentations

Content Topics

- Expectations
  - Following Requirements



Conclusion

~ Crucial Message towards Staff & Mentors ~

If You Don't Like Something Change It. If You Can't Change It, Change Your Attitude.
~Maya Angelou

omnibond
ORANGEFS · CLOUDYCLUSTER

Thank You!

SGCI
Science Gateways
Community Institute

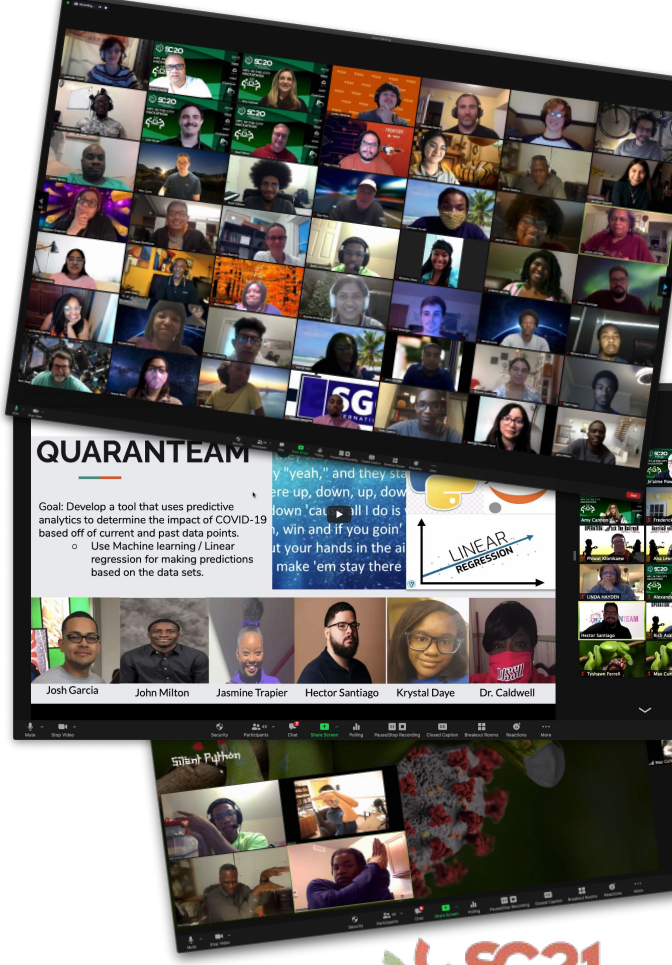
NO.1

Questions and Concerns

Next Session:

- **Kick-Off!!!** - [*11/4/21*]

Schedule:
https://jeaimehp.github.io/HackHPC-HPCintheCity21/

Presenter Contact Information:

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