



HackHPC@ ADMII23 HACKATHON

JUNE 26TH - 29TH, 2023



SGX3
Extend. Expand. Exemplify.

SGCI
Science Gateways
Community Institute

TACC
Texas Advanced Computing Center



GitHub and GitHub Pages Tutorial

<https://hackhpc.github.io/admi23>





Agenda

- Hackathon Objectives and Student Outcomes
- Example Project Timeline
- Deliverables and Resources
- GitHub
- GitPages
 - Markdown/HTML
 - Jekyll Themes
 - YAML
 - FontAwesome
 - GitHub CodeSpaces

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<https://hackhpc.github.io/admi23>



The Objective of HackHPC@ADMI23

This hackathon aims to harness the resources, skills, and knowledge found in the Science Gateways community in an effort to provide applied exposure towards students from 2-4 year post-secondary educational institutions. In short, the hackathon will provide skills and training while targeting problems that occur within the Science Gateways and Cyberinfrastructure community.

Student Outcomes

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



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Example Project Outline

- 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



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Deliverables and Resources

Deliverables:

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

Resources:

- GitHub
- Omnibond Eureka
- Most Commonly Used
 - HTML/CSS/JavaScript
 - Python
 - Jupyter Notebooks
 - GitHub Pages
 - Repl.it (Collaborative Environment)
- Slack
SGCI/SGX3 Coding Institute 2023
[Sgcisgx3codin-vks4362.slack.com](https://sgcisgx3codin-vks4362.slack.com)



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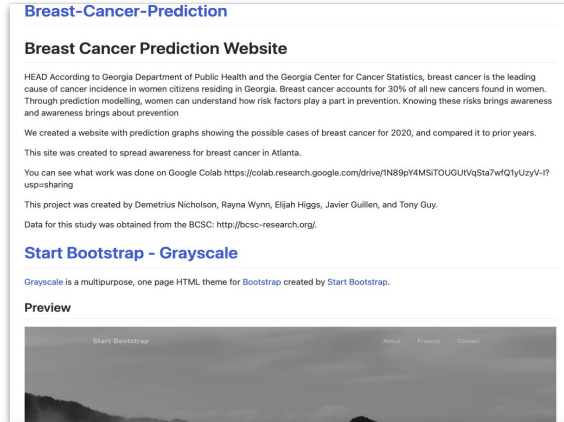
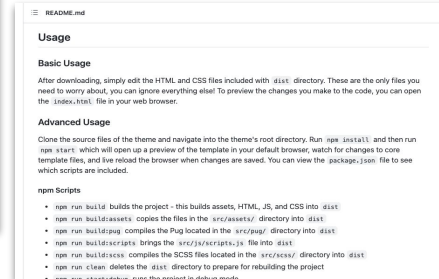
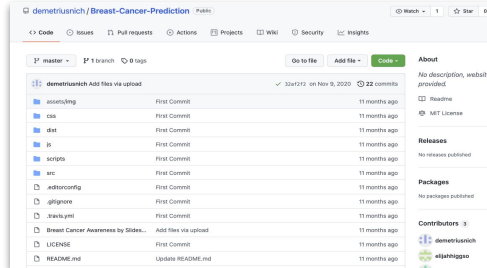


GitHub (Web) Basics



Note: A GitHub repository will be required of all teams when reporting out during final presentations. (Examples <https://hackhpc.github.io/ADMI22/>)

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



<https://hackhpc.github.io/admi23>



Repository Creation and README.md

Demo Time!!

Example GitHub Repo:

<https://github.com/jeaimehp/Git-Intro>



<https://hackhpc.github.io/admi23>



Resources & References

- **GitHub Tutorial** - <https://docs.github.com/en/get-started/quickstart/hello-world>
- **GitHub Pages** - <https://pages.github.com/>
 - Students guide to GitHub Pages - <https://codeburst.io/how-to-create-and-publish-a-website-a-students-guide-1ffd9dd6b39>
- **GitHub Codespaces** - <https://github.com/codespaces>
 - [Note:] Codespaces is available for free for individual use for up to 60 hours a month and comes with simple, pay-as-you-go pricing afterwards. (Last Checked 6/21/23 Ref. <https://github.com/features/codespaces>)
 - Codespaces Primers and Development Pack - https://education.github.com/experiences/primer_codespaces
 - Overview - <https://docs.github.com/en/codespaces/overview>
 - Codespace Quickstart - <https://github.com/codespaceshttps://docs.github.com/en/codespaces/getting-started/quickstart>
 - Shutting down / Stopping Codespaces - <https://docs.github.com/en/codespaces/developing-in-codespaces/stopping-and-starting-a-codespace>
 - Pricing over 60hours a month - <https://github.com/codespaces>
- **Jekyll**
 - Jekyll Themes - <http://jekyllthemes.org/>
 - Serving Jekyll site locally - <https://docs.github.com/en/pages/setting-up-a-github-pages-site-with-jekyll/testing-your-github-pages-site-locally-with-jekyll>
 - Example Theme "Not Pure Poole" - <http://jekyllthemes.org/themes/not-pure-pole/>
 - GitHub Repo - <https://github.com/vszhub/not-pure-pole>
 - Demo site: <https://vszhub.github.io/not-pure-pole/>
- Liquid - <https://shopify.github.io/liquid/basics/introduction/>
- **Markdown Github Cheatsheet**- <https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>
- HTML Cheatsheet - <https://htmlcheatsheet.com/>
- CSS Cheatsheet - <https://htmlcheatsheet.com/css/>
- Javascript Cheatsheet - <https://htmlcheatsheet.com/js/>
- YAML Tutorial - <https://spacelift.io/blog/yaml>
- Font Awesome
 - W3 Font Awesome Brand Icons - https://www.w3schools.com/icons/fontawesome_icons_brand.asp
- VS Code Source Code Editor and IDE - <https://code.visualstudio.com/>
 - VS Code Intro Videos: <https://code.visualstudio.com/docs/getstarted/introvideos>



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omnibond
Engineering • Trust • Identity

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Questions and Concerns

Next Sessions:

**- Kick-Off [6/26/23]
10:30am ET**

Presenters Contact Information:

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