HACKHPC@ ADMI25 HACKATHON

Kick-Off

June 23, 2025

SGX3
Extend. Expand. Exemplify.

Omnibond®

ADMI

HackHPC
Hackathons and Codeathons

https://hackhpc.github.io/admi25

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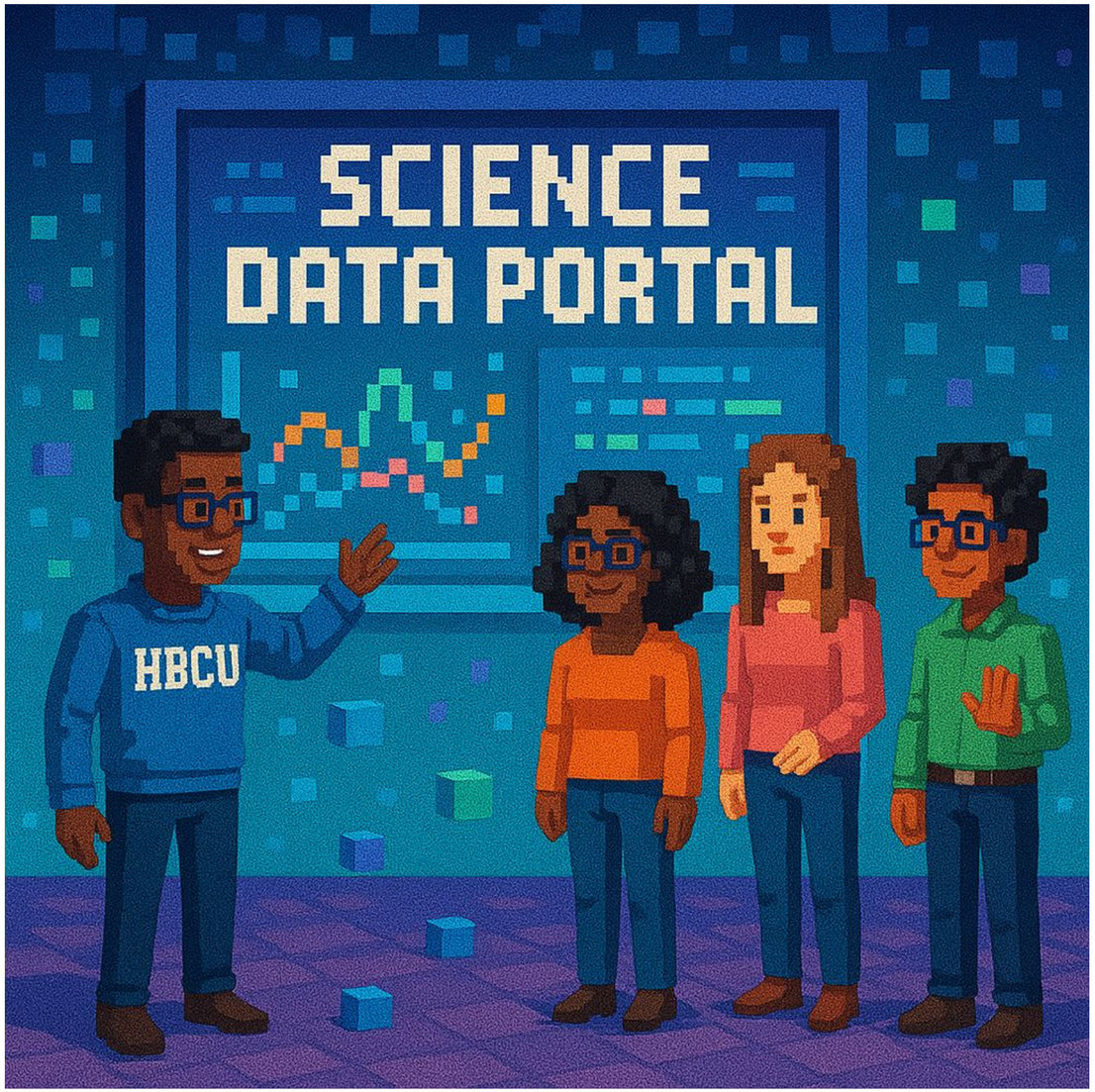
Agenda

- **Code of Conduct**
- **Introductions**
  - Organizers / Sponsors
  - Mentors / Helpers
  - Participants
- **Purpose /Objective**
- **Timeline**
- **Deliverables**
- **Awards**
- **Team Formation**



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Code of Conduct

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Introductions

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The Objective of SGX3's ADMI25 Hackathon

The HackHPC@ADMI25 hackathon is designed to harness the tools, expertise, and collaborative spirit of the Science Gateways community to provide students from 2- to 4-year post-secondary institutions with applied, hands-on experience. This event not only introduces participants to real-world challenges in Science Gateways and Cyberinfrastructure, but also emphasizes the importance of reproducible science—ensuring that research workflows are transparent, shareable, and verifiable.

Through this experience, students will explore how to evaluate and improve the reproducibility of published scientific work, gaining critical insight into open science practices while contributing to the broader High-Performance Computing (HPC) and CyberInfrastructure (CI) ecosystems.

Student Outcomes

- Gain practical experience in reproducible data science using cloud platforms
- Collaborate on real software engineering projects using open-source tools and workflows
- Build professional communication skills through team presentations and technical documentation
- Understand how reproducibility impacts scientific integrity and innovation

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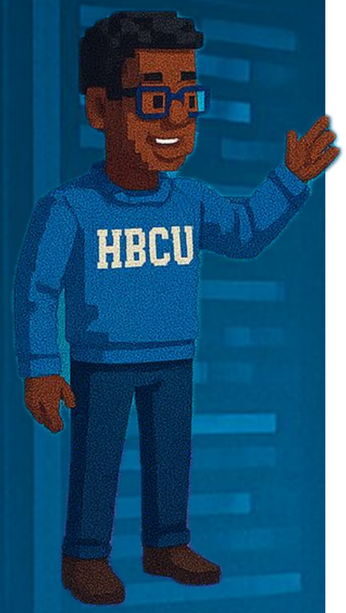
Example Project Outline

Event Simplified Schedule

- **Monday, 6/23/25**
  - **Kick-Off**
    - Overview - Team Formation
    - Afternoon - Team Introductions
- **Tuesday, 6/24/25**
  - Morning Checkin - Team Project Plan
  - Afternoon Checkin - Team Status
- **Wednesday, 6/25/25**
  - Morning Checkin - Status
  - Afternoon Checkin - One-Day Progress
- **Thursday, 6/26/25**
  - Morning Checkin - Status
  - Afternoon Checkin - Status
- **Friday, 6/27/25**
  - **Final Presentations**

~ 99 hrs Total Time
- ~7 hrs Planning / Checkins
- ~32 hrs Sleep/Rest
~60 hrs Work Time



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Hackathon Deliverables:

- **GitHub Repository**
  - README.md with project description and goals.
  - Source code with comments explaining functionality.
  - Project poster in PDF format.
  - Final presentation in PDF, including:
    - Team members' names and photos.
    - Technology used (e.g., tools, HPC resources).
    - Scores for 2023 ISCE and 2024 Supercomputing papers.
    - Scorecard explanation covering:
      - Paper availability.
      - Code and software availability.
      - Dataset availability.
      - Computer and GPU requirements.
      - Three additional metrics (e.g., documentation, result reproducibility).
- **Website or Portal**
  - Displays scorecard results for evaluated papers.
  - Explains scorecard metrics and their importance.
  - Lists team members with names, photos, GitHub, and LinkedIn profiles.
- **Proof of Poster Submission**
  - Evidence of submitting the project poster to Gateways 2025.
  - Adds +5 points to judging score.

Resources:

- GitHub
- Omnibond's
  - projectEureka
  - Linux Server
- Commonly Used
  - Generative AI
  - Python
  - Jekyll/HTML/CSS
  - Google Workspace
- SGX3CodingInstitute25 Slack Workspace, **#admihackathon25** channel

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Hackathon Awards

NOTE: A team can only win one (1) major award.

Major Awards

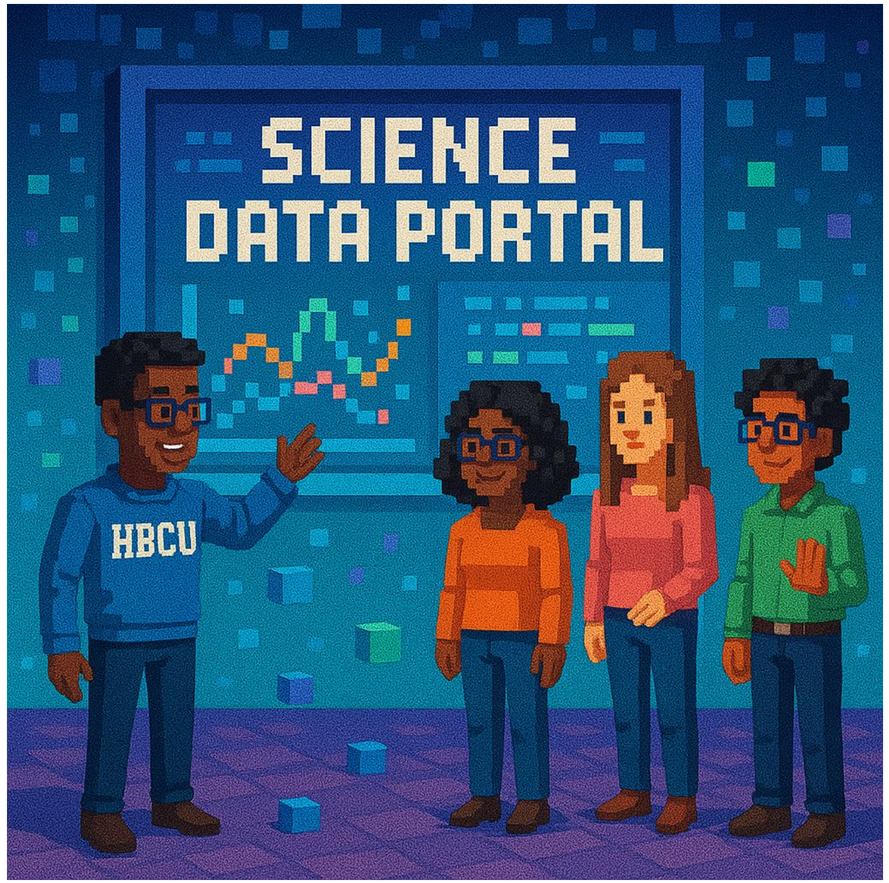
- ***Scorecard Analytics Award***
  - Recognizes the team with the most insightful and well-justified reproducibility metrics, demonstrating thoughtful evaluation of scientific artifacts using their custom scorecard.

- ***Data Portal Award***
  - Celebrates the team that creates the most effective and user-friendly web portal for visualizing and communicating their reproducibility scorecard results.

- ***Gateways Impact Award***
  - Honors the team whose final presentation, scorecard, and portal collectively make the strongest contribution to advancing reproducible science through Science Gateways.

Example Minor Awards *<u>MAY</u> INCLUDE*

- *Team Introduction*
- *Project Planning*
- *Project Progress*



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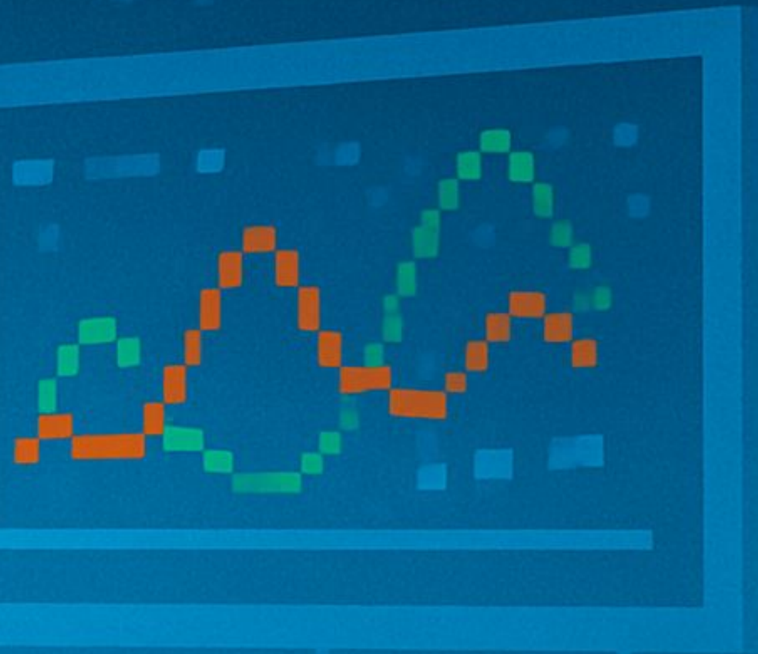

Team Formation

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Goals For the Next Check-in

Your team needs to add two (2) slides to the shared deck with:

- 1st Slide with just Team Name
- 2nd slide with:
  - Team Name
  - Team Members Names
  - Team Zoom Virtual Background
  - Team Theme Song
    - *Royalty Free Music*
    - *No Lyrics*

[Note: If your slide deck is made in Canva it must be exported to PPTX and then imported to the shared slide deck]

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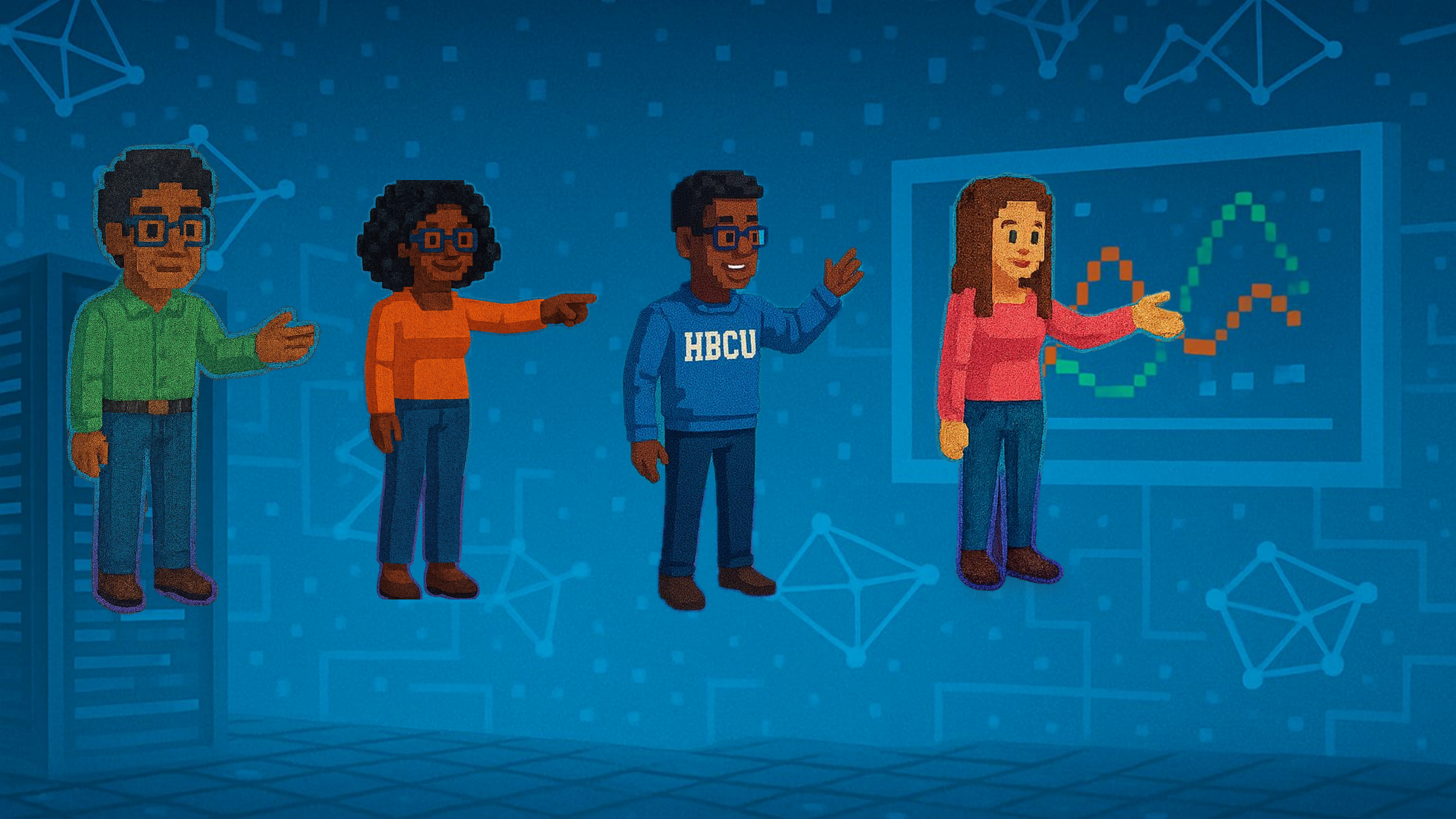
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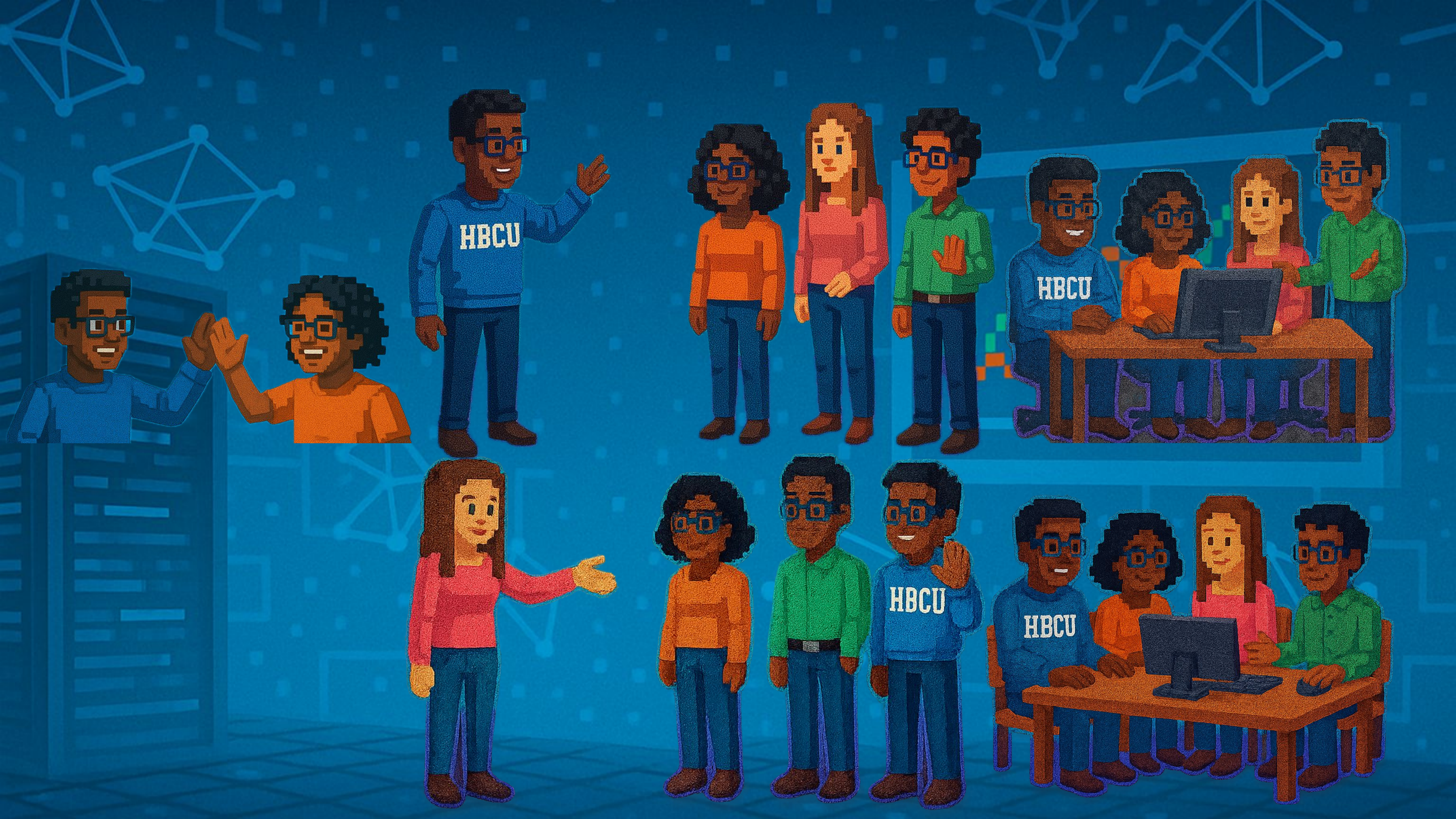
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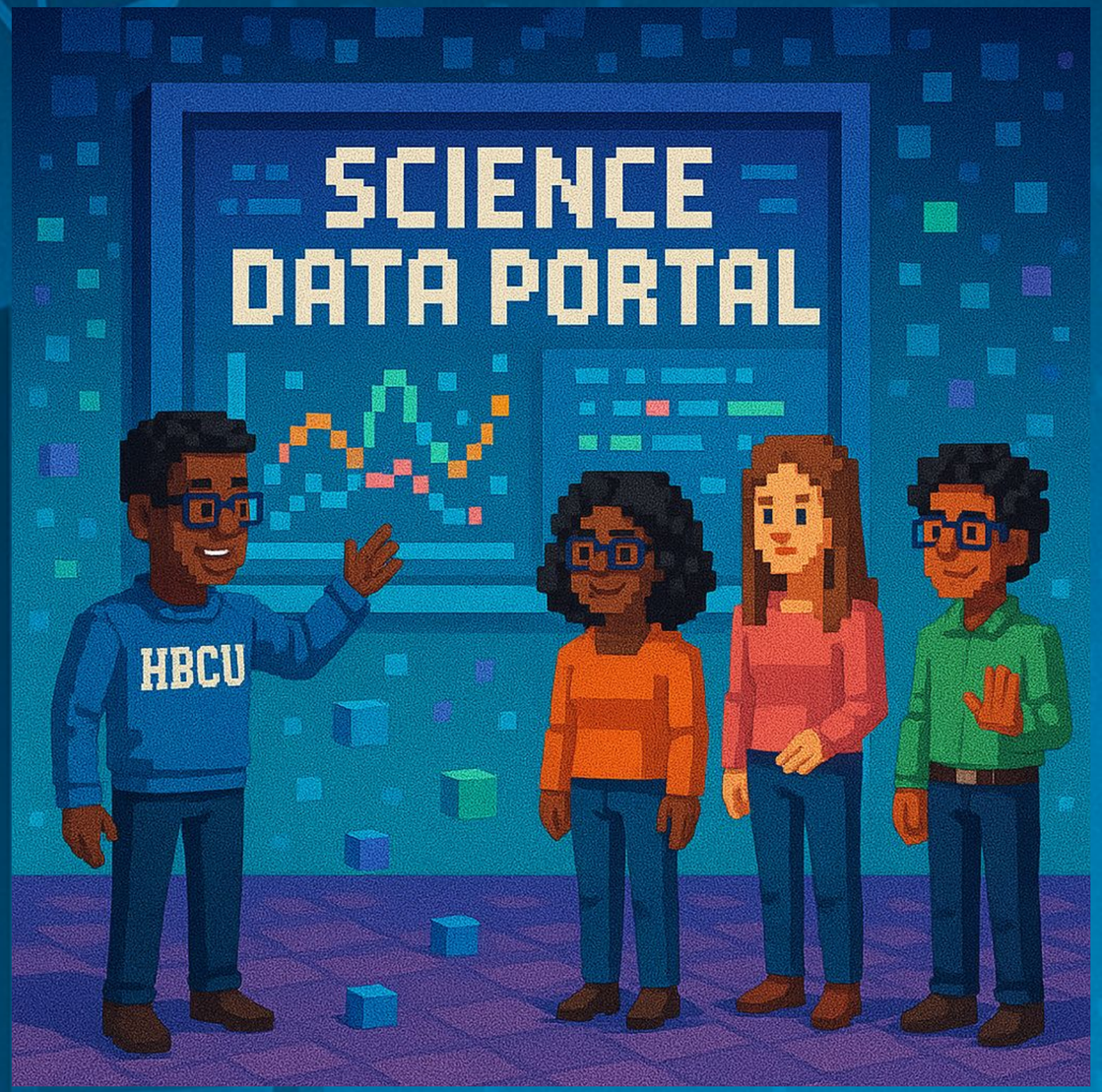
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