

# Broadening Participation in Data Science

Dr. Talitha Washington

www.DataScience.aucenter.edu



From UConn Magazine:

https://magazine.uconn.edu/2022/06/14/revenge-of-the-data-scientists



"African American individuals account for 12% of the US as a whole\* but only 3% of Data & **Analytics** professionals."





## Our Team



Talitha Washington, PhD, Director & Professor of Mathematics, Clark Atlanta University



H. Justin Ballenger, PhD, Deputy Director & Assistant Professor of STEM Education, Morehouse College



Bettina Gardner Administrative Director



Tommy Taylor Jr Communications Specialist



Eboni Dotson, PhD Executive Assistant



Manoah Farmer Data Analyst



Carolyn Rhodes Recruiting Coordinator



We are committed to advancing data science, artificial intelligence, machine learning, and cybersecurity techniques that address ethics and bias, with a focus on topics that impact Black America



## Atlanta University Center: Atlanta Student Movement





A 90-year-old consortium of HBCUs serving approximately 9,000 (primarily African American) students



https://www.sncclegacyproject.org/julian-bond

# Historically Black Colleges and Universities (HBCUs)

- "established prior to 1964, whose principal mission was, and is, the education of Black Americans", Higher Education Act of 1965
- Approximately 101 HBCUs & 10 have R2 status
- HBCUs make up 3% of all institutions in higher education and enroll 10% of Black students
  - HBCUs graduate 24% of Black students with STEM degrees, even though they enroll 10% of all Black students
  - HBCUs are the institution of origin of almost 30% of Black graduates in STEM doctorate programs





## AUC Data Science Initiative



### **Goal 1 Develop Talent**

Be a significant producer of African Americans with expertise and credentials in data science

### **Goal 2 Create New Knowledge**

Lead national efforts to address race, gender, and social justice aspects of data science















**CURRICULUM** 

RESEARCH

**ENGAGEMENT** 





## Catalyzing Through Partnerships

Co-develop Programs,
Guest Lectures, and
Provide Real World
Applications

**Industry** 



and Workforce
Development

Students

Research, Training,

**Faculty** 









Research Discovery, Expand Pathways, and Develop Curriculum



## Our Sponsors





















## Industry Engagement

## **DINNER & DATA**

**How to \$ecure an Internship** 



Join us for a FREE dinner along with networking, resume review, and professional photos with the AUC Data Science Initiative.

- Thursday, September 8th, 2022 5:00pm-7:30pm
- AUC Robert W. Woodruff Library
  3rd Floor Exhibit Hall
- Must RSVP to attend:
  https://tinyurl.com/DandDInternship





#### Travel and Training

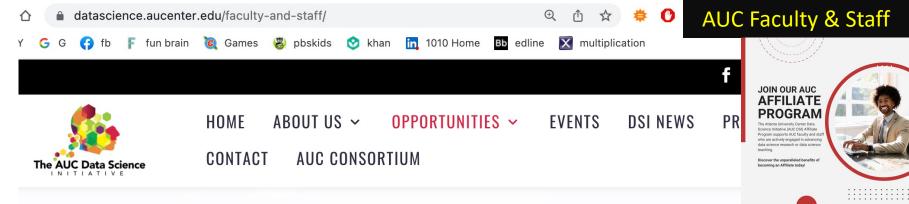
The Travel and Training Support Program aims to increase the participation and engagement of AUC students, faculty, and staff in data science. Support for virtual conferences may be included. Click below for more information.

LEARN MORE AND APPLY 6

#### Faculty Recruitment

The AUC Data Science Initiative has allocated funds to work collaboratively with our AUC member institutions to recruit and hire faculty who have expertise in data science or data science-related fields. These funds are intended primarily to assist with the hiring of data science faculty at an AUC member institution and augment not supplant existing support for faculty recruitment and hiring.

LEARN MORE & APPLY



## **Empowering Our AUC Innovators**

The AUC Data Science Initiative designs and implements programming to support faculty research and curriculum development and to grow student research and learning capabilities.

### Mini-Grant Program

The AUC Data Science Initiative invites Affiliates to apply for mini-grants to stimulate data science-related research and curriculum development productivity. If you are not an Affiliate, please inquire with AUC DSI. The mini-grants aim to strengthen research and inform teaching.

The Mini-Grants Program has four tracks:

Track 1: Curriculum Development

Track 2: Research Development

### 2022 Virtual Summer Workshops



We invite AUC faculty, staff, and graduate students to

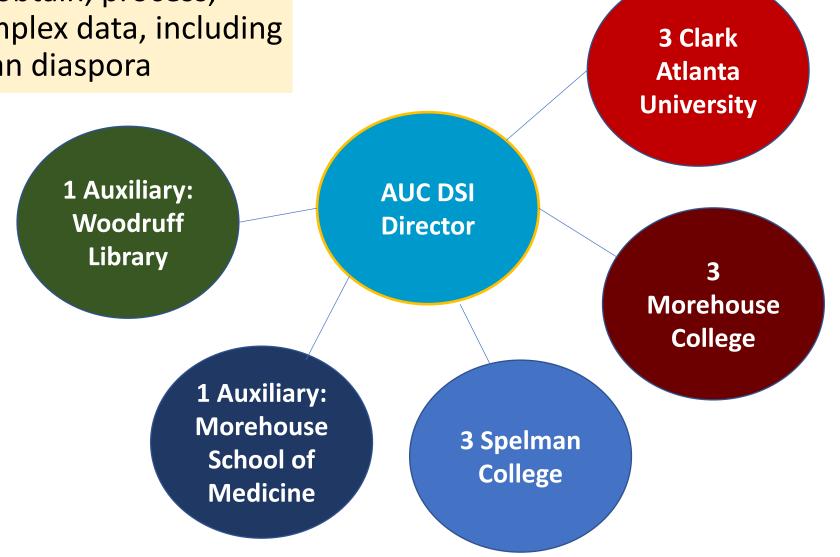
## Data Science and Analytics Minor

Prepare our students to obtain, process, analyze, and present complex data, including data related to the African diaspora

#### **AUC DSA**

#### Framework:

- 1.Math/Stat
- 2.Programming
- 3. Modeling
- 4. Data Curation
- 5.Ethics
- 6.Communication



# Workshop on Using Data to Drive Reform Through Prosecutorial Performance

- ~45 participants from 11 HBCUs developed planning documents to develop prosecutorial performance solutions, with a focus on African Americans
  - Held in-person on June 9, 2022
  - In collaboration with the Prosecutorial Performance Indicators Team
- *Upcoming:* **Data-driven Health Equity Workshop**, Summer 2023
  - Co-led by AIM-AHEAD Southeastern Hub at Morehouse School of Medicine













HOME ABOUT US ~

OPPORTUNITIES ~

DSI NEWS

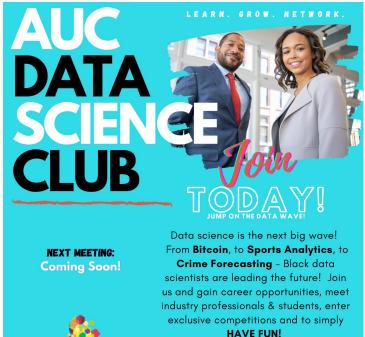
PROJECTS ~

CONTACT AUC CONSORTIUM

## **Empowering Our AUC Students**

The AUC Data Science Initiative designs and implements programming to support student development, skill enhancement, as well as funding and industry opportunities.

## **DATA SCIENCE** Sign up for three exciting new AUC data science courses launching in the Spring of 2022! **DATA & THE AFRICAN DIASPORA DISCOVER ARTIFICIAL INTELLIGENCE - AI4ALL** DATA ANALYTICS W/NIELSENIQ To learn more visit: https://datascience.aucenter.edu/newcourses





2022 PFx: Keeping Communities Safe Through Data

#### Travel and Training

The Travel and Training Support Program aims to increase the participation and engagement of AUC students, faculty, and staff in data science. Support for virtual conferences may be included. Click below for more information.

#### PFx: PreFreshman Experience



The Pre-Freshman Experience (PFx): "Data for Social Good" - summer program offers incoming AUC students a chance to engage in data science before the start of their first year. Throughout the one-week program, students will explore applications of data science and learn about different career opportunities.



# REU Site: The Application of Data Science to Chemistry

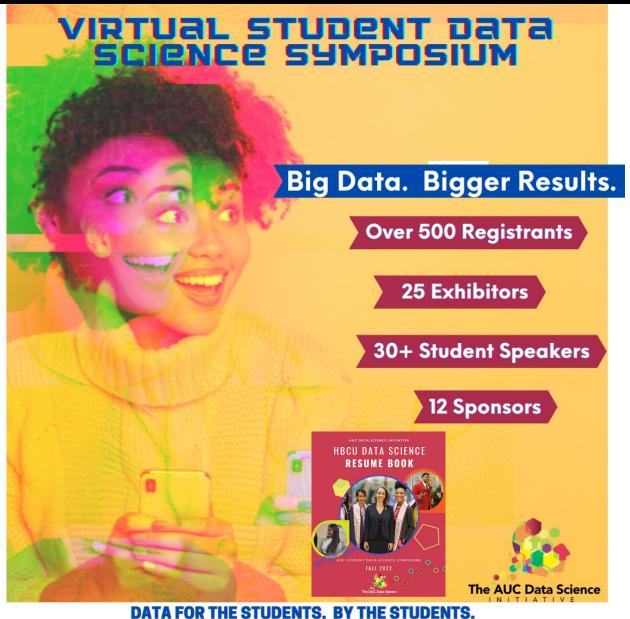
- PI: Dr. Seyhan Salman, Assistant Professor of Chemistry, Clark Atlanta University
  - All STEM majors interested in the interface between materials chemistry and data science are encouraged to apply to participate in a 9-week undergraduate research.
- Stipend: \$5,400 over 9 weeks with a travel allowance and housing at Clark Atlanta
- Date: June 5 August 4, 2023
- Questions? Contact Dr. Seyhan Salman at ssalman@cau.edu
  - https://datascience.aucenter.edu/reu

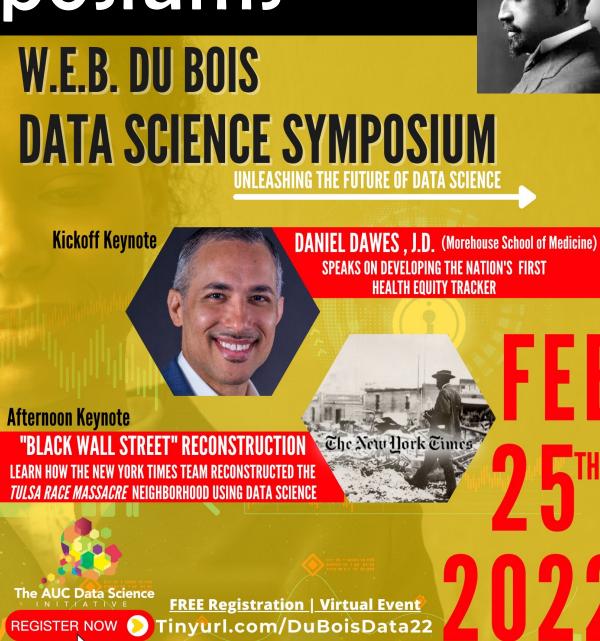






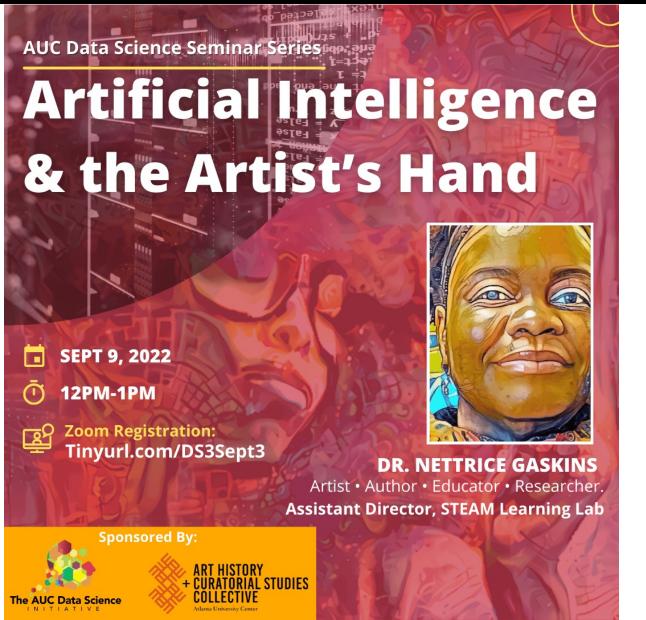
## Our Symposiums







## Seminar Series



**AUC Data Science Seminar Series** 



Growing Data Warriors to Reclaim Tribal Data Sovereignty

- OCT 14, 2022
- **12PM-1PM EST** 
  - Zoom Registration:
    Tinyurl.com/DS3Oct14



Speaker

DR. DESI RODRIGUEZ-LONEBEAR

Demographer of Data Warriors Lab THE RUC DATA SCIENCE INITIATIVE presents:

## Data Block Party

**MUSIC - DANCING - GAMES REALLY AMAZING FOOD** 

> **AUGUST 24, 2022** 5 PM UNTIL 7 PM **AUC LIBRARY**

ALL STUDENTS, FACULTY, AND STAFF WELCOME!



THE ATLANTA UNIVERSITY CENTER DATA SCIENCE INITIATIVE, HINES FAMILY FOUNDATION. Mercer-set lab, georgia tech and georgia space grant consortium

PROUDLY PRESENTS:

# SPACE DAY ATLANTA IN THE AUC

**Open to ALL curious about space!** 







## **Data Science @ HBCUs**



#### Bowie State University

Data Science & Analytics Initiative infuses DSA into undergraduate courses, undergraduate research opportunities, and faculty learning communities

#### Florida A&M University

• Leads the HBCU DS Consortium, a community of data science across 6 HBCUs: Alabama A&M University, Bowie State University, Morehouse College, Johnson C. Smith University, and Norfolk State University

#### Fisk University

First dedicated undergraduate data science program at an HBCU as well as in the state of Tennessee

#### Howard University

• Data Science and Cybersecurity Center & the Center for Applied Data Science and Analytics

#### North Carolina A&T University

Computational Data Science and Engineering PhD and MS programs

#### North Carolina Central University

• Launched major in Information Technology with concentration in data analytics

#### Winston-Salem State University

Center for Applied Data Science









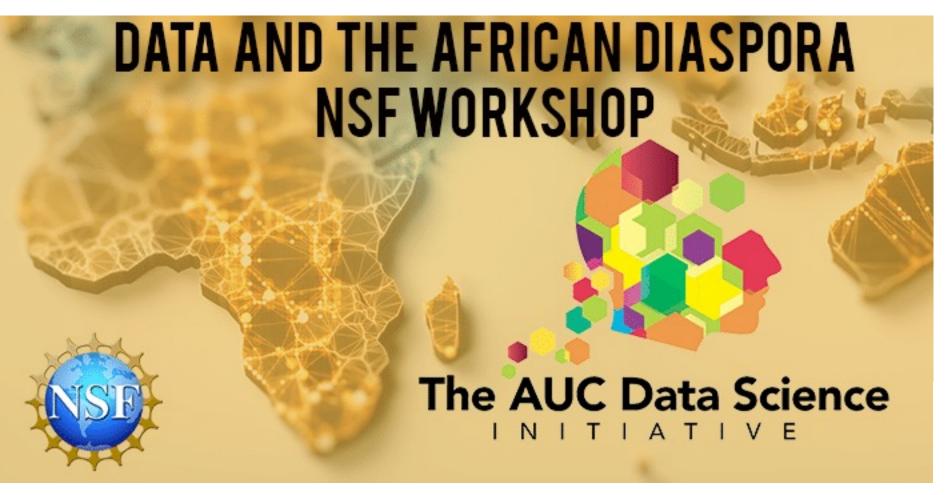




Data Science and Cybersecurity Center (DSC2)

Big Data with AI for the Greater Good

http://www.famunews.com/2020/12/famu-receives-funding-from-nsf-south-big-data-hub-to-develop-a-national-hbcu-data-science-consortium/ http://cyber.howard.edu/node/8 https://www.fisk.edu/academics/nsmb/department-of-mathematics-and-computer-science/data-science/ "Enhancing Data Science Education by Leveraging Data Sets from the African Diaspora." May 2022



This material is based upon work supported by the National Science Foundation under Grant No. <u>2136382</u>. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.













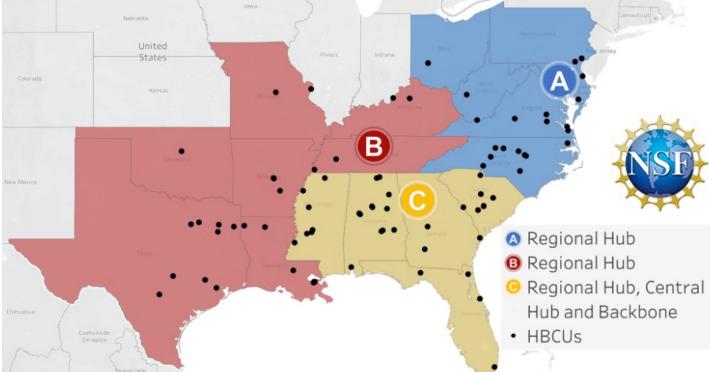
## National Data Science Alliance (NDSA)

**Talitha Washington, Clark Atlanta University** [2217346]

LaTanya Brown-Robertson, Howard University; Moses Garuba, Howard University; Sajid Hussain, Fisk University; Eric Mintz, Clark Atlanta University



 National network of Historically Black Colleges and Universities (HBCUs) with industry, government, and academic collaboration to transform data science discoveries into tangible societal benefits that advance equity for all



## National Data Science Alliance (NDSA)

 Build a national network of HBCUs to advocate for the building of institutional data science capacity

#### Vision:

- Increase the number of Blacks who earn data science credentials by 20,000
- Create equitable data science techniques and models





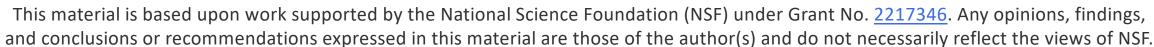
























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