



Science Gateways
Community Institute

4-WEEK CODING INSTITUTE

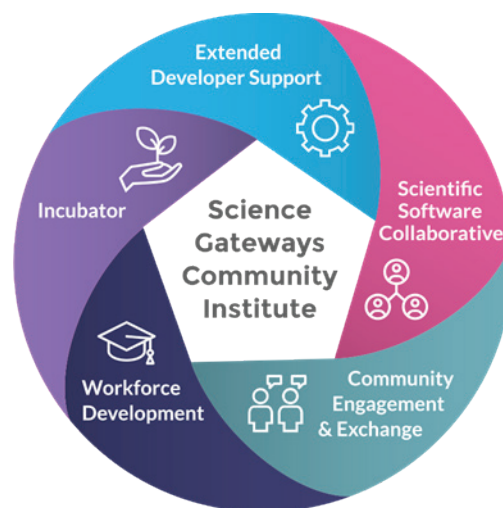
JULY 5-31, 2018

ELIZABETH CITY STATE UNIVERSITY

SGCI serves the science gateway community.

We provide NSF-funded, online and in-person resources and services. Our goal is to facilitate the sharing of experiences, technologies, and practices within this community at little or no cost to our community members.

Science gateways allow science & engineering communities to access shared data, software, computing services, instruments, educational materials, and other resources specific to their disciplines.



Leadership Team

NAME	ROLE	SERVICE AREA	INSTITUTIONAL AFFILIATION
Maytal Dahan	Assoc Dir	Scientific Software Collaborative	Texas Advanced Computing Center
Linda Hayden	Assoc Dir	Workforce Development	Elizabeth City State University
Katherine A. Lawrence	Assoc Dir	Community Engagement & Exchange	University of Michigan
Marlon Pierce	Assoc Dir	Extended Developer Support	Indiana University
Nancy Wilkins-Diehr	Director	Management	San Diego Supercomputer Center
Michael Zentner	Assoc Dir	Incubator	Purdue University

2018 SGCI Coding Institute Opening Program



Dr. Karrie Dixon
Interim Chancellor
Elizabeth City State University



Science Gateways
Community Institute



Nancy Wilkins-Diehr
SGCI Director
San Diego Supercomputer Center, UCSD



Dr. Linda Bailey Hayden
SGCI Director of Workforce Development
NSF Presidential Award (PAESMEM)



Dr. Roger Hathaway
SGCI Steering Committee Member
Director of Education NASA Langley Research
Center (retired)



Dr. Rion Dooley
TACC Research Associate
Web/Cloud Services Group Manager

Friday July 6, 2018 229 Dixon Hall

8:30 – 9:30am Breakfast

9:30 – 10:30 Introductions of participants and staff (Linda Hayden) -10 min

Science Gateway Institute Overview (Nancy Wilkins-Diehr) -15 min

Welcome (Roger Hathaway) -5 min

Speaker Introduction (Jullian Allagan) -5 min

Building Science Gateways and APIs in R (Rion Dooley)-15 min

Closing Comments (Chancellor Karrie Dixon) -10 min



PEARC18 Conference and Hackathon

Participants will travel to Pittsburg, PA for the Practice & Experience in Advanced Research Computing (PEARC) 2018 conference. The PEARC student program includes mentoring events, modeling, a hackathon competition, and speed networking. <https://www.pearc18.pearc.org/>

PEARC18

July 22-26, 2018
Pittsburgh, PA

PEARC TUTORIALS and Sessions

- Birds of a Feathers bof120: Science Gateways and You
- ECSU Technical Paper: Establishing paradigms for modifying and developing the Workforce Development section of the Science Gateways Community Institute Site
- Special Events spec109: Science Gateways Hackathon Event
- Technical Paper pap204: The Science Gateways Community Institute at two years: early successes and lessons learned
- Tutorial 1: Introduction to Python 3 and Jupyter Notebooks
- Tutorial 2: Introduction to MPI Using the Interactive Parallelization Tool (IPT)

SGCI

2018
SCIENCE GATEWAYS
HACKATHON

Shown below are highlights from PEARC17



Alfred P. Sloan
FOUNDATION

isr institute for
SOFTWARE
RESEARCH
Carnegie Mellon University

TACC
TEXAS ADVANCED COMPUTING CENTER

DELLEMC

cloudycluster
by Omnibond™

SGCI Coding Institute

The SGCI four-week Coding Institute is focused on gateway development for undergraduate students at Elizabeth City State University. The workshop covers the core skills needed to be productive in design and maintenance of science gateways. The program is presented as short tutorials alternated with practical exercises, and all instruction is done via live coding.

SGCI 4-Week Coding Institute 2018

DAY	Date	Task	8:30 - 12 noon	1:30 - 4:30 pm	6:00-8:00 pm
TH	5-Jul		Arrive ECSU campus - Lane Hall		PYTHON LAB
F	6-Jul	1st Stipend Payment	Welcome breakfast/Tech Talk	PYTHON	PYTHON LAB
SA	7-Jul			PYTHON	PYTHON LAB
SU	8-Jul			PYTHON LAB	PYTHON LAB
M	9-Jul		R and Jupyter	UNIX Shell	Gateway Architecture
T	10-Jul		R and Jupyter	UNIX Shell	Gateway Architecture
W	11-Jul	SGCI webinar 1pm	R and Jupyter	Webinar & UNIX Shell	Gateway Architecture
TH	12-Jul	Hackathon webinar	Hackathon webinar	UNIX Shell	Gateway Architecture
F	13-Jul	Rion Dooley Seminar/R	R and Jupyter	Building Lightweight Data Science Gateways and APIs in R	
SA	14-Jul	Virginia Beach Field Trip (Derek drives)			
SU	15-Jul			Gateway Architecture	Gateway Architecture
M	16-Jul		R and Jupyter	Ethical Hacking	Ethical Hacking
T	17-Jul	Hackathon webinar	R and Jupyter	Hackathon webinar	Gateway Architecture
W	18-Jul		R and Jupyter	Open Lab	Gateway Architecture
TH	19-Jul		R and Jupyter	Open Lab	Gateway Architecture
F	20-Jul		R and Jupyter		
SA	21-Jul				
SU	22-Jul	PEARC 18	PEARC 18 travel	PEARC 18 travel	Student Program Opening Activity
M	23-Jul	PEARC 18	Jupyter Notebooks Tutorial	SGCI Tutorial	Student-Mentor Dinner
T	24-Jul	PEARC 18	Modeling Contest	Modeling Contest	Poster Session
W	25-Jul	PEARC 18	PEARC 18	Student-Mentor Lunch	Science Gateways and You
TH	26-Jul	PEARC 18	Updates, Hacking Academia, Trusted CI Panel	Awards Lunch	SGCI Hackathon
F	27-Jul	Hackathon	SGCI Hackathon	SGCI Hackathon	SGCI Hackathon
SA	28-Jul		Return ECSU	Return ECSU	Return ECSU
SU	29-Jul			Open Lab	Open Lab
M	30-Jul		Poster Design	Poster Design	Open Lab
T	31-Jul		Open Lab	Final Reports	Closing Dinner
W	1-Aug	Final Stipend Payment	Checkout, final stipend, Depart for airport		

Mentors/Training

Jeff Wood & Derek Morris..... Python & Unix
Gregory Goddard Ethics
Dr. Julian Allagan..... R programming & Jupyter Notebook
Dr. Jerome Mitchell Gateway Architecture
Jeff Wood Poster Design
Dr. Rion Dooley Building Lightweight Data Science Gateways & APIs in R
Derek Morris & Joal Hathaway..... Open Lab
Je'aime Powell & Hackathon Mentors Hackathon Preparation

Participants

Kyanie Waters Mississippi Valley State University..... CS
Shaniqwa Barber Mississippi Valley State University..... CS
LaQuandria Murry Mississippi Valley State University..... MATH
Solomon Gebrhana..... Mississippi Valley State University..... CS
Lilshay Rogers Elizabeth City State University CS
Matthew Hill..... Elizabeth City State University MATH
Derek Morris Jr Elizabeth City State University MATH
Alexis Martin..... Elizabeth City State University CS
Reginald Kelley..... Elizabeth City State University CS
Donovan Doss..... North Carolina A&T..... MECH ENG