**Genome Solver QUBES Workshop**

**Agenda**

**October 2nd 2020 1-2:30pm**

**Zoom link:**

<https://georgetown.zoom.us/j/95855584079>

**Before the workshop**

1. Please join the Genome Solver Community if you haven’t already

* Go to <https://qubeshub.org/community/groups/genomesolver/> and sign up for your own account - see the green tabs near the top of the page.
* Note: For those of you who took a workshop before 2017 - we have a new website (the old http://genomesolver.org site no longer exists). So please take a spin around and let us know what you think.

2. Questions – contact

Anne Rosenwald, Georgetown University – anne.rosenwald@georgetown.edu

Gaurav Arora, Gallaudet University - gaurav.arora@gallaudet.edu

Vinayak Mathur, Cabrini University - vinayak.mathur@cabrini.edu

3. Information from you

We will also be asking you for information on

* the courses you teach now and plan to teach in the future
* research questions you are interested in
* active learning practices you currently use

We can help you incorporate the tools we’ll discuss in the workshop in your teaching assignments/research projects

**To have with you before the workshop**

1. Your laptop

2. Your enthusiasm for undergraduate STEM education!

**Workshop Learning Goals**

Through taking part in the workshop, faculty will:

* Become familiar with a new GS Module on Networks and Data Visualization
* Get introduced to teaching tools for the Community Science Python Pipeline
* Identify projects that complement your curricular needs;
* Identify projects that complement your research needs;
* Made connections with other participants to help create a community for student learning and research progress

Students engaged in research, as a result of working with trained faculty, will learn to**:**

* Recognize the process of genome analysis as it relates to gene structure and function
* Recognize the relationship between DNA sequence and predicted protein coding sequence
* Recognize that homology to defined protein domains can infer function
* Apply comparative analysis to demonstrate that fitness for an environmental niche is determined by the genes an organism has
* Visualize data using networks

**Workshop Agenda**

All materials are located in [this folder](https://drive.google.com/drive/folders/1TdpLtYLHoBxXchc6bgJ_iR-ky7JIzX0v?usp=sharing).

**Friday October 2nd, 2020**

**1:00 – 1:05** Introductions and Goals of Genome Solver - Anne

**1:05 – 1:15** Implementation of workshop material - all participants

**1:15 – 1:30** Teaching tools forPython Pipeline Workflow - Vinayak

**1:30 – 2:15** Data Visualization using Cytoscape - Gaurav

**2:15 – 2:30** Wrap-Up and Final thoughts