**iACS** INSTITUTE FOR ADVANCED COMPUTATIONAL SCIENCE

The Institute for Advanced Computational Science at Stony Brook University is offering this programming workshop for high school rising juniors and seniors. Students must be 15 years old or older by the time of the camp. This hands-on, 10-day camp introduces students to the programming skills and software/computer technologies that drive advances in science, industry, business and society. Starting with no assumed prior knowledge of programming, the camp introduces programming using the Python language and emphasizes development of algorithmic thinking and problem solving. From faculty and graduate students, participants will learn about using big-data analytics and high-performance computing to solve problems in science and engineering, and will then participate in team projects motivated by these same research challenges. By the end of the camp, students will have sufficient programming skills and awareness of the field to pursue further independent study and to inform future choices for education and careers. Ideally students will use their own laptops (Macs, PCs or Linux are acceptable: a few are available for loan) so they can continue to use the camp's open-source software programming environment and tools.

### INSTITUTE FOR ADVANCED COMPUTATIONAL SCIENCE

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**Stony Brook University**

**iACS** INSTITUTE FOR ADVANCED COMPUTATIONAL SCIENCE

# IACS COMPUTES!

SUMMER CAMP 2018

## SCHEDULE

The camp takes place at the Institute in the IACS building on campus. The camp runs from Monday, August 13- Friday, August 24. The day begins at 9:00 am and ends at 3 pm with a lunch break from 12-1 pm. All students are responsible for their own lunch as well as their own transportation to and from campus.

- Welcome
- Install programming tools
- Introduction to the tools
- Writing your first programs, computer technology, algorithmic thinking
- Programming including manipulating and visualizing data
- Case studies and setting the stage for projects
- Tour of campus facilities
- Initial team project
- More programming skills and tools
- Team projects
- Review
- Wrap up and course evaluation

## COSTS AND SCHOLARSHIPS

The fee for the 10-day workshop is $575, payable by credit card only. Scholarships are available for those students who qualify for the free or reduced lunch program in their school districts. If you are interested in having the camp fee waived and you are eligible, please respond to the question regarding the free and reduced lunch program on the application cover form. The application deadline is April 20.

## QUESTIONS?

**For more information or questions, call 631-632-4629 or email iacs@stonybrook.edu.**