SPMPS Alumni Newsletter

January, 2015

What are you doing next summer?

SPMPS wants to help you answer this question! For those of you who couldn't be at the Summer Programs Information Session on January 10, 2015, read on to find out what you missed, including how to apply for your next summer program! If you were there, use this as a reminder of what was discussed.

Most programs require at least two steps to apply. Generally speaking, you can expect a **program application** as well as a **financial aid application**. Summer programs tend to be expensive, but we only recommend programs where you can apply for financial aid or scholarships to make sure all SPMPS alumni can afford to spend their summer doing something amazing.

What can you expect in the program application? In addition to biographical information, programs might ask for:

Essay(s). An essay is how they get to know you and see how you communicate. How well you write matters. You can bring your essay to SPMPS before you start writing to help plan your essay or after you write to edit and check for errors. **Advice: When writing an essay, pick a memorable topic and tell a specific story with examples.**

Task. Some programs want to see your work. This might take the form of a test (for CTY), independent work (for MathPath, Mathcamp, or PROMYS), or honor system timed work (like MathILy). **Advice: SPMPS can't help you with these assignments, but if you want a quiet place to work on them, you can come to Office Hours. We might even be able to answer clarifying questions.**

Letter(s) of recommendation. These can come from a teacher, guidance counselor, mentor, coach, or other adult who knows you well (as long as he or she is not a family member). The program will tell you want they want. **Advice: Make sure to ask for a letter at least 3 weeks early to give your recommender time.**

Transcript. A transcript is a record of your grades in school and what classes you took. **Advice: Make sure to ask for your transcript as soon as possible to give your school time to prepare it.**

Unless a program is free to all people, you will also be able to fill out a *financial aid application*, usually due at the same time as

the program application. The goal of the financial aid application is to show the program how much income your family has so they know what you can afford. Generally speaking, they will ask for your 2014 1040 (which is a tax form). **Advice: If you have to apply before your family finishes their 2014 taxes, there is usually an option to send last year's taxes.**

SPMPS has a directory of summer programs for students in grades 8-12 and we would be happy to recommend programs for you. It's not too late to ask for recommendations. You can find the form online. Go to the page below and click on "Sign Up":

artofproblemsolving.org/alumni

Fatimatou Diallo (SPMPS Bard '11, center) spent the summer studying math. Photo courtesy of Mathworks Honors Summer Math Camp at Texas State University.

Quick Updates

Columbia Science Honors: If you are in 9th, 10th, or 11th grades, now is the time to apply to this program. Students get to take classes at Columbia University in topics ranging from "Optics and Lasers" to "Groups and Symmetry" to "Psychology of Memory." The application is due at the end of February so you need to get started right away.

Weekly Office Hours: We now offer office hours *every week*! Come in to go over homework (math or non-math), finish applications to summer programs or high schools, study for the SHSATs or SATs, look at college guidebooks, borrow a book, or just to hang out! Thursdays, 3pm-8pm, 1150 6th Ave., 6th floor.

SAT Preparation: 11th graders, now is the time to begin preparing for college. A major part of this is taking the SAT and the SAT 2 subject tests. Come to office hours to get extra practice and guidance! If you can't come on Thursdays, call or email us to make an appointment for another time.

Programming at SHIP

*Part of the **Alumni Experiences** series, where we tell you about alumni experiences at different programs and schools.*
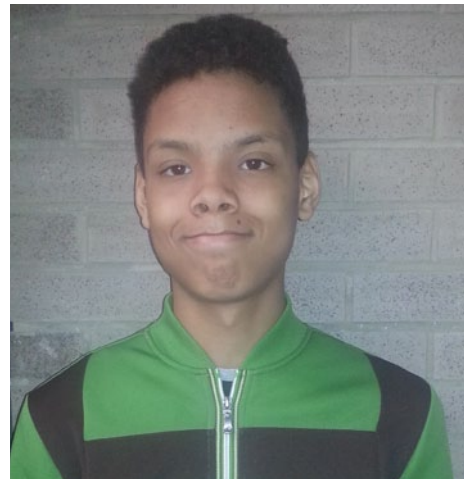
We asked Samuel Acosta (SPMPS Bard '13) what he learned at the Summer Hackers Immersion Program (SHIP). His response? "How to work as a team and how to create a plan for whatever you do. We made a plan for a game and it helped us learn what was optional (what we could cut corners on) and what wasn't."

SHIP is a four-week long program here in New York City (last summer it was held at St. Joseph's College in downtown Brooklyn) where students learn computer programming. Samuel says the classes were very interactive, with 20-25 students in a room, all working on projects and learning what they needed to bring their own project to reality.

After the 1st week, students moved from classes to independent or group work time. Most of it was spent designing computer programs. "Some people designed apps, some designed games. We designed a game that was over ambitious. It was supposed to be a nature simulator, taking care of a bunny rabbit. We didn't really think about user interface and we didn't design enough buttons for all the variables."

SHIPmates (the name of the students at SHIP) were helped by TAs, also high school students. The TAs were learning too, designing their own more advanced projects like ones with camera capture, "where you use the webcam on your computer to analyze things, like face recognition. One very memorable thing was that they had a maze that once you drew [it], you could use the camera to navigate [the maze]. [The TAs] were new to those apps, so they often had glitches."

Samuel said that the classes were some-

Samuel in January 2015. Photo by Lynn Cartwright-Punnett.

what challenging and that designing his group's game was the hardest part. "Merging code was really hard," he added. Students had to learn how to use their time well so they accomplished as much as possible each day.

Samuel says that you really have to be excited about programming to love SHIP, but that everyone is welcome, whether you are beginner or advanced.

Initially, making friends was a challenge because everyone was so focused on their work. "The best time to make friends is at lunch and the best way is just to sit down and talk. By the time you make 4 or 5 friends, that's probably a good number." Even before he made friends, it was still easy to work with classmates. "It felt natural."

On a lighter note, Samuel said that the best part of the program was Fridays, when the program ordered lunch from a restaurant (he wasn't the biggest fan of the college dining hall).

Whether you spend the summer at SHIP or another program, Samuel has good closing advice for you: "Try new things out, they might be good for you. I am less interested in computer science than I am in other fields, but this was still a great program."