

## CTG Online News

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### Students Create Health Data Visualization Tool for Department of Health During CTG's Summer Student Lab

Interns at the Center for Technology in Government spent this summer working on a variety of projects pertaining to data visualization, cyber security, process management, web development, and more as part of CTG's Summer Student Lab, which aims to provide students with experiential learning opportunities to enhance their education while at the same producing innovative tools and techniques for our government partners. Three of CTG's outstanding interns came through the Brazilian Scientific Mobility Program (BSMP), a government sponsored program in Brazil that provides bright and dedicated students with the opportunity to travel abroad and learn from the world's best colleges and universities.

Amanda Reis, Fellipe Gurgel, and Gabriel Fernandes are undergraduate computer science students from Brazil who were eager to spend the summer working and learning from CTG. They have completed their work in CTG's Summer Student Lab where working together with Kashif Zaidi, a Computer Science graduate student at the University at Albany, they created Data Visualization Prototypes for the New York State Department of Health that culminated with a final presentation to Department of Health staff members on August 12th.

The idea of the project was straightforward, but the task was complex: take data that is currently published and publicly available on the Department of Health's open data platform, Health Data NY, and create a system prototype that would be more user friendly, increase capability for consumers, and more efficiently connect the data between Health Data NY and the Department of Health's public facing, static website. This prototype focused specifically on working with the Department of Health's eQARR (Quality Assurance Reporting Requirements) data tables that were developed by the New York State Department of Health to enable consumers to evaluate the quality of health care services provided by New York State's managed care plans. CTG developed ways to dynamically process this data and produce graphs and charts to visualize the tabular information.

Working under the supervision of CTG's Derek Werthmuller, Director of Technology Innovation and Services, and Jim Costello, Web Applications Developer, the team utilized the SCRUM method, an agile software development technique that encourages a team to work collaboratively as a unit across overlapping phases to reach common goals rather than working separately. Each student encountered several challenges over the course of their work and all successfully problem solved and productively worked through these obstacles as a team. This type of experiential learning can have a lasting effect on a student's future career. As Fellipe said, "I am really proud of what we have accomplished as a team. This opportunity has been the best kick start of my career."

"This summer went far beyond what I expected and I couldn't have imagined a better experience," says Gabriel. "This project allowed me to learn new technologies, and explore different areas of computer science including data analysis, data manipulation, data visualization, web design, and more. My time at CTG greatly enhanced my knowledge and reinforced how exploring different areas can be positive," Gabriel continued.

Fellipe and Gabriel will return to Brazil at the conclusion of the summer where they will further their education, complete their degrees and begin their careers. Amanda will spend this upcoming semester studying at the University at Albany, and will then return to Brazil where she hopes to use her newfound knowledge to bring technology innovation to Brazil. Kashif will remain a part of the CTG team as an intern this fall while he continues pursuing his Master's Degree at UAlbany.