Job Title	Research Assistant
PVN ID	RC-1702-001658
Category	Research
Location	CUNY-ADVANCED SCIENCE RESEARCH CENTER
Department	Environmental Sciences Initiative
Status	Part Time
Salary	Depends on qualifications
Hour(s) a Week	0.00
Closing Date	Apr 08, 2017 (Or Until Filled)

General Description

This work is part of an NSF-funded multi-institutional project (#1360445) led by Prof. Charles Vorosmarty at CUNY-Advanced Science Research Center (ASRC), entitled *A National Energy-Water System Assessment Framework (*NEWS*)*. For this sub-project, the prospective student will be working directly with Prof. Huy Vo to build an interactive visualization program for exploring data products from NEWS simulation models and for disseminating results among NEWS members. The data from NEWS consists of several variables (energy production, river flow, water temperature, etc.) in NetCDF format and span decades (1950-2100). Data is of several terabytes in size. The visualization tool is intended to help stimulate a policy dialogue uniting stakeholders with the technology team to co-design sustainable water-energy futures.

We currently have a prototype written in C++ based on Qt and OpenGL (see the Figure below). The prospective student will help advance and customize the software further to meet the needs of the project.

Required Skills:

- Proficient in C++, Boost and/or C++11 STL
- Experience in building Qt applications on Mac/Linux environments

Preferred Knowledge/Experience with:

- Computer Graphics pipeline and OpenGL
- Mapped files
- NetCDF format
- CMake
- Parallel programming

Salary:

- Typically $2,500 to $3,000 per semester, negotiable depending on experience

Other Duties

Qualifications