

## **A programming position for graduate students**

One research staff position is open for an advanced networking simulation project in the Department of Mathematics and Computer Studies at York College, The City University of New York. This project is funded by PSC-CUNY research award 38. We developed a reliable multicasting algorithm with expected minimal recovery delay on Internet-like topologies. This position is expected to

- Generate an Internet-like network topology using network simulator ns2 with the amount of nodes up to 2000;
- Within this network, dynamically simulate multicasting packets from one source to multiple receivers.
- Implement the recovering algorithm developed by us to recover the lost packets incurred in the above multicasting process.
- Collect the number of nodes who have lost the packets, total recovery time, total bandwidth required for recovery.
- Compute the average recovery time and average bandwidth required for recovery purpose. Generate the corresponding data graphs.
- This simulation will be done on various sizes of network from 128 nodes up to 2000 nodes.

The applicant must be familiar with network simulator ns2; programming in C++, C and Tcl; and Linux/UNIX system. The pay rate is \$20 per hour. The working place and time can be flexible. The key point is to get this simulation study done correctly in a timely fashion.

If you feel interested and meet the above requirements, please do not hesitate to send your resume to [dzhang@york.cuny.edu](mailto:dzhang@york.cuny.edu) with subject line “Apply for ns2 programming position”.