We're looking for graduate student interns to work in the Information Sciences group at the Los Alamos National Laboratory. Details are given below. Candidates with experience in parallel and distributed systems preferred. Please forward to your student mailing lists as appropriate, thanks.

Sunil Thulasidasan
Los Alamos National Laboratory

Note: Please put "Los Alamos CCS-3 Internship" in the subject line of any email related to this. See below for contact information.

The Socio-technical Modeling and Communication Network teams in the Information Sciences Group (CCS-3) at Los Alamos National Laboratory (LANL) has projects in discrete simulation spanning the full range of research activities from problem analysis, algorithmic and system design to implementation, testing and productive use of our tools. We cover a broad, diverse and ever-expanding range of application domains with a focus on infrastructure modeling; our current portfolio includes communication networks (Internet, PSTN, cellular, ad hoc, mesh, sensor), transportation networks, commodity networks, epidemic modeling, agent-based activity modeling in emergency scenarios, and social networks. Our simulations model large-scale, detailed, socio-technological systems; a key requirement for our tools is scalability, which we achieve through distributed implementations on high performance distributed computing clusters. Most of our students have been able to publish their LANL-work in peer-reviewed journals and conferences.

We have several openings for graduate students to work with us for a limited time (typically between three and 24 months). Applicants should have demonstrated knowledge and publications in one or more of the following areas:

- Parallel and Distributed Systems Design and Implementation
- Strong programming skills and interest in C++, including template programming and STLs
- Knowledge of one or more scripting languages (Perl, shell)
- Communication networks
- Knowledge of communication protocols
- Protocol design for wireline and wireless networks
- Domain-specific knowledge in other infrastructure sectors (e.g., computational economics, transportation networks, public health, etc.)
- Combinatorial algorithm design
- Distributed discrete-event simulation
- Agent-based simulation paradigms
- Applied game theory
- Statistical analysis
- Experience in distributed programming and MPI will be a plus.
- Excellent verbal and written communication skills

US citizenship is NOT a requirement.

Starting dates for these student positions are negotiable; the appointments related to the above positions are expected to start between April and August. Longer-term students (6 months or more) preferred. Please send your cv (in plain text or pdf) to sunil@lanl.gov. Please put "Los Alamos CCS-3 Internship" in your subject line. The cv should reach us no later than Feb 29, 2008.

We provide an excellent academic working environment with access to state-of-the-art technology and an impressive (lab-wide) pool of researchers for collaborative efforts. Annualized student salaries fall in the range from USD 44K to USD 60K depending on education status.

Los Alamos is a small, picturesque town located at an altitude of 7000 feet in northern New Mexico, and offers ample opportunities for outdoor recreation, public concerts and artistic activities. In addition, the nearby city of Santa Fe is home to a great variety of cultural events throughout the year.

Looking forward to your application,
Sunil Thulasidasan and Stephan Eidenbenz