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Dear Parents,

You are receiving this letter because you are either a parent or a guardian of a female student in the gifted program. We hope that you will spend some time reading it and considering encouraging your daughter or the young woman in your care to participate in our project.

On behalf of the Computer Science and Engineering Department at the University of Nebraska, Lincoln, NE, we are pleased to announce the Fourth Annual GEM Team Writing Contest, sponsored, in part, by a seed grant from the National Center for Women and Information Technology (NCWIT) as well as continued funding by the Union Pacific.

The project, GEM, which stands for **Girl Empowerment and Mentoring for Computing**, aims to inspire middle and high school girls towards computing in post-secondary education by (1) empowering them with skills and interest for computer science (CS) and information technology (IT), and (2) mentoring them to improve their self-efficacy and motivation for a career in CS and IT.

Accordingly, the goal of the contest is to encourage female middle and high school students to learn about information technology (IT) and computing through three important activities: (1) working with a "Big Sister" at UNL who will mentor the participants, (2) working in a team with female students from other schools, and (3) investigating the use of IT and computing in real-world applications. This contest will allow young female students to learn from their mentors about life as a student at UNL and as a CS student, learn how to work as a team with teammates from other parts of the state of Nebraska, and learn how to investigate a technical topic and write cohesively and engagingly about their findings. Essays will be judged on a variety of criteria and winning teams will be awarded with prizes and scholarships.

Our goal supports the mission of NCWIT, the major sponsor of this program, to ensure that women are fully represented in the influential world of information technology and computing. *Please see the side bar for why this issue is important.*

#### Why Women in IT?

- **Innovation and competitiveness.** Innovation thrives with a diversity of ideas and input. As IT becomes a commodity in an increasingly global society, what will distinguish U.S. performance? Women can, and must, play an important role in IT innovation if the U.S. is to remain competitive.
- **Jobs.** U.S. Department of Labor projections forecast that our economy will add 1 million professional IT jobs by 2014. In the aftermath of the dot-com bust, however, the perception of a job shortage has caused a sharp decline in enrollment at computer science programs. With the female labor force growing at a faster rate than the male, we must capitalize on women's value in our IT workforce.
- **Social impact.** From airbags to voicemail to medical advances, we've seen the negative consequences of products and services designed without women's participation. As technology becomes exponentially more pervasive in our lives, we need to ensure that it is created by as broad and diverse a population as the one it serves.

Further, as our world is rapidly becoming digital and computing is increasingly pervasive and ubiquitous, it is essential for all students, regardless of majors, to have an appreciation for computational thinking—just as we require all students to have mathematical thinking—and an ability for logical problem solving in topics ranging from sciences to music, from writing to art.

Therefore, participating in a contest like the GEM Team Writing Contest can open up new opportunities and expose your daughter to exciting ideas in the IT and computing world, and take a first and key step towards a successful post-secondary education and professional career down the road.

In addition to the GEM Team Writing Contest, we started two new GEM programs last year and will continue for this year. We will have “Visit Your School” days where we visit your school to present something fun about computational thinking, with games, puzzles, and a magic show. We will also have “Shadow A Mentor” days where we arrange for GEM participants to visit campus and follow their mentor to class and to other activities for a day.

For this year, due to sponsorship constraints, we will only accept 50 participants. And thus, we will give priority to students who have not participated in GEM before. Since we will have other activities such as Visit Your School and Shadow-A-Mentor Days, for students who we cannot accommodate in our Team Writing Contest, we will try to arrange for them to participate in those activities. Thus, all are welcome to apply.

In conclusion, we would like to strongly and passionately urge you to encourage your daughter to participate in the contest. Please visit our project website at <http://cse.unl.edu/gem> for more information on registration, as well as details on expectations and time commitments of participants and of parent(s)/guardian(s). **Registration will end on Friday, November 11<sup>th</sup>**. Feel free to contact us if you have any questions.

Sincerely,



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