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# Look Who's Talking Careers

## By LingLing Dong

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STEM Careers in Polar Climate

Grades 7-12

Single Class

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### Career Area & Job Title:

Computing Science and Geophysics

Data Systems Engineer

### The Big Picture - What I do:

I write software for our instruments' data acquisition, science data analysis and display. This is extremely important since a successful field campaign must collect the data and put it into a format the science team can work with. I manage about 10 lab computers by loading the operation system, and configuring them to work. I also design and implement a local network for the computers in the rack so that we can perform data acquisition and communication during the field campaigns. Being able to see the data and while we are in the field is key to our being able to make any needed corrections before it is too late.

### What I Like Most About My Job:

I like to develop software that works with instruments; it is interesting and complicated: it involves hardware, Operating Systems (OS), and software knowledge. I also like to deal with scientific data to discover the science rules hidden in the data.

### The Most Unusual Part About My Job:

It requires multiple skills in different fields.

### What Type of Schooling/Experience is Needed?

Solid Computing science and Geophysics education is a good start. But just completing the courses is not enough. I have definitely put effort into learning the computer administration and network. In addition, this career needs the courage to continue learning and mastering the new theories and rules. It is most important to be creative and to resolve real problems.

### Photo



LingLing Dong discusses the data systems program with Scott Brown during project testing.

### Education

Degree in Solid Computer Science

Degree in Geophysics