

- Developing a “smart wheelchair” to improve the quality of life for people who are disabled
- Designing handheld devices that can diagnose diseases in regions of the world without hospitals
- Creating a virtual fashion show with interactive holograms to launch a new clothing line

A collection of free resources for teachers and parents is under development. The collection will include downloadable posters, presentations, brochures, college guides, and research information, as well as real-world images of young women in a variety of computing careers ideal for use in your own promotional materials. Resources will include:

- What Girls Want From Their Careers
- Top 10 Reasons Computing is a Great Career
- How to Talk to Girls About Computing
- Summer Camps, Contests, and Other Opportunities
- Support Organizations for Women in Computing

The message that Dot Diva is sending to students is that studying CS opens doors and leads to exciting career opportunities by creating tools can be used to do wonderful and important things. Send your ideas for useful resources to dotdiva@wgbh.org.

College Connection

Virginia Tech

Editor’s note: *This dialog with Dr. Cal Ribbens, Associate Department Head for Undergraduate Studies at Virginia Polytechnic Institute and State University (Virginia Tech), is a continuation of our series of interviews with CSTA institutional members. Please share with your students these details about the CS programs at Virginia Tech.*

Virginia Tech, with an enrollment of over 30,000 students, is a public land-grant university located in Blacksburg, VA. The Department of Computer Science (CS) offers bachelors, masters, and doctoral degrees in CS (www.cs.vt.edu)

CSTA: What draws students to your program and what keeps them there?

Ribbens: Students choose to study at Virginia Tech (VT) for a variety of reasons. Many are drawn to its state-of-the-art facilities and a wide range of courses with a good student/faculty ratio taught by 35 highly-qualified faculty members. VT is an affordable, highly-ranked university consistently listed in various “best-value” rankings, and the College of Engineering undergraduate program is currently ranked 14th in the U.S. Over 350 undergraduate CS majors value the many opportunities to be involved in undergraduate research and extensive interaction with companies who recruit VT graduates.

CSTA: What skills can students acquire before college that will help them succeed in your program?

Ribbens: A strong foundation in mathematics is important. A high school CS class is helpful, but not presumed.

CSTA: Tell us about innovative majors or programs of study at VT.

Ribbens: In addition to more traditional courses of study, VT offers optional tracks in Human Computer Interaction; Knowledge, Information and Data; Media/Creative Computing; Scientific Computing; and Systems and Networking.

CSTA: What cool careers are VT graduates prepared for?

Ribbens: VT graduates go on to careers in an extremely wide range of well-known companies. Graduates have accepted opportunities in consulting, finance, entertainment, education, energy, government, security and more. Over 30 companies regularly attend CS job fairs at VT.

CSTA: What distinguishes VT and its program from others?

Ribbens: Vigorous learning environments in human-computer interaction, high-end systems, computational biology, and bioinformatics, as well as extensive opportunities to get involved in undergraduate research projects and summer internships sets VT apart.

CSTA: Tell us a bit about the social environment of the CS program.

Ribbens: Students can select from a wide range of social, intellectual, and service organizations. A large undergraduate learning center provides space for CS students to work on group projects and gather informally.

CSTA: What unique programs are in place at VT to increase the diversity of the CS student population?

Ribbens: The Department supports a very active chapter of the Association for Women in Computing. Approximately ten VT students attend the Grace Hopper Celebration of Women in Computing. In addition, the College of Engineering, through its Center for the Enhancement of Engineering Diversity (CEED), supports many activities to encourage and support students from diverse backgrounds. Professor Manuel Pérez-Quiñones is Chair-Elect of the Coalition to Diversify Computing (www.cdc-computing.org).

SHOW ME THE NUMBERS

Trends in U.S. Female Undergraduate CS & IT Degree Recipients

2008

Female undergraduate degree recipients (all fields) 57%
 Recipients in computer & information sciences 18%
 CS & IS recipients from major research universities 12%

1985

Recipients in computer & information sciences 37%

2000 to 2008

Decline of incoming undergraduate women interested in majoring in CS 79%

Source: www.ncwit.org/pdf/BytheNumbers09.pdf

CSTA Members in the News: Video Recorder Winners

CSTA congratulates **Deborah Gillian** of *Alma J. Brown Elementary School (LA)* and **Elaine Adams** of *Holidaysburg Area Sr. High School (PA)* both of whom won a Flip® video recorder for their participation in the CSTA Membership Satisfaction survey.