

# Spotlight on growing CS PD impact: Fran Trees

Learn how Fran Trees of Rutgers University grew the impact of her CS PD year-over-year, and review her tips for other aspiring PD providers and applicants.

Fran Trees, an associate teaching professor in the Computer Science Department at Rutgers University, New Brunswick Campus, oversees and coordinates CS courses for non-CS majors at Rutgers. Since 1985, Fran has worked with College Board as an AP CS Consultant, also having served on both the AP CS A and AP CS Principles Development Committees. In addition to her work at Rutgers and with College Board, Fran has served as Chapter Liaison for the Computer Science Teachers Association since 2008 and has also served on the CSTA Board of Directors.

*Her research interests are in CS Education - most recently Fran is focused on infusing cooperative learning into CS courses to promote engagement and diversity, and on scalability issues in CS classes at the university level.*



## What advice would you give to an aspiring CS PD provider?

- Connect with other CS Educators in your community at all grade levels - CSTA Local chapters may help you do this, and if you don't have one, create one!
- Ask for help with the planning and organization of your events, and involve teachers in the design
- Stay in touch!
- Plan ongoing communication and support with the teachers you plan to target.
- Be organized.
- Set timelines and follow them.

## What advice would you give to an aspiring applicant?

- Ask your local teachers what they need or want in terms of PD.
- Look at the programs that past PD providers have offered.
- Read the application carefully.

## What issue(s) were you hoping to solve in your community, and how did you know that CS professional development for educators was an important solution?

"I began my CS leadership activities as a consultant for College Board AP Computer Science many years ago. The same issue frequently arose - CS teachers were alone in their schools and districts and were unable to ask for help and/or support when they needed it. Oftentimes these teachers would contact me for advice, or clarification of materials. Since I began teaching at Rutgers University in 2011, my CS department has encouraged and supported my interests in CS outreach and professional development opportunities. In 2012, I organized our first Rutgers workshop supported by Google funding. It was invigorating, extremely rewarding, and the beginning of a solution to the 'CS teacher isolation' syndrome as we brought together a local community of CS educators.

At a working lunch during our first workshop, the Central NJ CSTA chapter was born. Our PD opportunities have, since 2012, served as community building activities and created a “family” of CS teachers that now span grades K-16.”

## What were the first steps you took to start a local CS educator PD opportunity in your community?

“Our first local PD opportunity was the 2012 Google-funded workshop at Rutgers University. Prior to the application process, I researched what other Google-funded PD providers included in their workshops. My plan was to have a 2-day workshop primarily geared at high school CS teachers, but open to K-8 teachers as well. Since this was our first meeting with local teachers, we really didn’t know what (or who) to expect. During the workshop, a core group of these CS teachers worked during their lunch break to plan the application process for a Central NJ CSTA chapter. Many of these 2012 workshop participants attend our workshop every year and have become instrumental in the planning and the building of our CS Teacher community. Some others have even become presenters at our workshops.”

## What are some of the challenges you’ve encountered in your CS PD work, and how are you working to overcome those challenges?

“The first challenge is that I am running out of new and exciting ideas for our workshop sessions! I am frequently asking for help from my colleagues, and any CS acquaintances who have successfully led PD for K-12 teachers. The second challenge is attracting more K-8 teachers to our workshops. This past year, the Rutgers workshop funded by Google focused on middle school teachers. We had twenty middle school teachers attend our 2-day workshop in August 2017. Our largest challenge was how to find the middle school teachers. We reached out to any possible connections we had to school districts. In addition to the 2-day workshop, we will be visiting two middle schools in the winter to chat with administrators, teachers, and guidance counselors about improving and/or expanding CS in their schools.”

## How has your CS PD evolved over time, and why?

“A few of the teachers that attend our Google funded workshop in the summer have contributed as presenters in the more recent workshops. Our participants also let us know what activities/sessions would help them. So, the planning for the PD is a joint effort between teachers and PD providers! It is this collaboration that helps strengthen our CS community. In addition, since the first PD in 2012, our Central NJ CSTA chapter has been the lead in working for CS Advocacy in the state of NJ. A core group of our teachers are currently working on a Task Force with the NJ Department of Education reviewing standards for CS in hopes of implementing these standards in the near future. We have evolved from an informal group of teachers at a CS summer workshop to an active group of CS educators working towards the goal of CS for ALL through policy and advocacy.”

## What has been the most important element of your CS PD work, and why?

“The most important element to my CS PD work has been, and continues to be, our local CS educators’ community. This community that first began in 2012 at Rutgers has strengthened and expanded. NJ has three active CSTA chapters (North, Central, and South). Although CSTA chapters have different and diverse local CS communities, together they are the backbone of the NJ state advocacy group for CS. It is evident that these CS teachers are committed to improving and expanding CS in NJ. In 2012, I had no clue that the CS teachers at the workshop would be able to have such a huge impact on CS education in NJ. And, although I support their efforts 100% and I help where I can, most of the initiative has come from two outstanding CS teachers, Daryl Detrick (past-president of CSTA Central NJ) and Mayra Bachrach (past-president of CSTA Northern NJ) and a core group of dedicated CS K-12 educators. I am very proud of our local CS community and the work that has been accomplished in NJ to promote and improve CS in our state.”