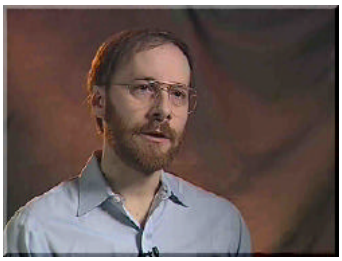
Profiles of Computer Engineers



Gary Saucier

Senior Engineer
Texas Instruments
Dallas, TX

Education:
B.S. - Electrical and Computer Engineering, Clarkson College
MBA - Amber University

Job Description:
Senior Member of the Technical Staff, leading for about forty design engineers, working through the architecture, requirements, technology selection and day-to-day technical decisions of development.

Advice to Students:
"Get as much experience as you can by working in teams -- especially teams that are interdisciplinary. If you're inside a discipline such as EE, work with a power engineer; work with a microwave engineer or a digital engineer."

Video Transcript:
"Probably, rather than picturing it as two ladders it's probably best described actually as Y in that in the early stages of one's development there really is an interaction between team leadership. One can be team leader with an insight to more the supervisory roles or more to the technical direction. And you can actually move back and forth through the first several rungs of the ladder and there's not a clear distinction of technical versus management. But as you get up to approximately the project lead or program management, you start to get the person who specializes, either more in managing the business or in the technical direction of the business. And so typically at about the twelve to fifteen year rank you start to see people start to split and focus more in one side or the other."

Interview:

For Gary Saucier of Texas Instruments the work that a modern engineer does is intimately connected to the lives of the people who use the final products. Unlike the work of the previous generation which involved trains, planes, and automobiles and the roads and bridges these traveled on the work being done now changes "the way we run our day to day lives." Therefore, engineers "have a responsibility to make sure that they put things together in a way

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that's not harmful to people and that enables them to obtain the lifestyles that they're looking for."

The nature of the work being done today is extremely team oriented. "Almost none of the things that we invent are invented by any one person." Saucier explains that what is required is a "sharing of knowledge." Each person has to be "willing to learn and has to have respect for others' knowledge and abilities, so that we can create a team." At this point in time, "most of the things in the world that we do are systems. They're no one thing. They're half analog, half digital, part power, hardware, software."

Therefore, Saucier's advice to students is "get as much experience as you can working in teams especially teams that are interdisciplinary. If you're inside a discipline such as EE, work with a power engineer, work with a microwave engineer or a digital engineer." The modern engineer needs to be familiar with other fields and he or she needs to be able "to talk across the boundaries."

Working in teams also helps to keep the engineer intellectually open to new approaches. As they go through their courses, Saucier wants students to understand that "the end job that you're going to be doing is not tied to any one class, but to the integrated whole of all the classes you've ever taken." Many of the problems that teams work on have no foreseeable solution. "In everything we do, typically, about half of it has not been done by anybody before, and there's not a pat solution." The team members' task is to synthesize their skills, knowledge, and talents to find one.

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