



Sloan Career Cornerstone Center

Profiles of Electrical Engineers and Computer Scientists



Mark Hawkins

**Project Engineer
Caterpillar Incorporated
Peoria, IL**

Education:

B.S. - Electrical Engineering, Bradley University
M.S. - Electrical Engineering, Bradley University

Job Description:

Supervising Engineer of the display, monitoring, and communications hardware section in the information products division.

Advice to Students:

"If you want to work in hardware, find the best guy in hardware and become his friend, so you can learn more. Same with software."

Video Transcript 1:

"In terms of the types of people we need for our corporation, we need people that are very good technically, that may not interact very well, those sort of typical nerd engineers that go off and do things in a closet. Those people are very important for technical advancements, but in terms of taking what they do and adding a broader appeal to it and utilizing those electrons, you need people that are very good communicators and understand, maybe not all the details of it, but at a level enough to take it out and make it useful to other people."

Interview:

Mark Hawkins of Caterpillar, Incorporated, offers students some sound advice. He speaks from experience, having done purely technical work as a software engineer and as a hardware engineer and currently working in a managerial capacity as a systems engineer. He tells students to find a mentor. "If you want to work in hardware, find the best guy in hardware and become his friend, so you can learn more. Same with software."

Hawkins further advises students to "take every class you can, no matter what subject or topic, to broaden your experiences. And if you're going to specialize in an area, then become the expert that you can [be]." As far as non-technical course are concerned, he recommends that students take typing, if they did not do so before college, because they will use it constantly on "e-mails, documentation, software," and more. Other important courses are "the ones

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engineers hate to take speech classes, writing classes, punctuation because if you have a good idea and it doesn't come across well, it doesn't go anywhere. And then [you need them] for talking to people and being able to go to customers and discuss things with them." In fact, Hawkins adds, "Even history and some of the non-technical classes that allow you to understand other people's points of view are useful."
Hawkins is acutely aware of the need to communicate well and understand others.

"I work with the business unit, identifying at a high level what they want. Typically, a marketing guy will say, 'Well, we want this feature.' and then I go to the technical people and say, 'Can you do this feature?'" Once the latter have worked out the details, he acts as liaison between them, the suppliers, and the business unit. Not even engineers who work on purely technical aspects of projects are exempt from having to work with others. No one engineer does a job. Parts are completed by "the business unit, the customer, hardware, software, components people. Everything we do has, at least, three or four people involved.

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