



Profiles of Electrical Engineers and Computer Scientists



Jay O'Dell

**NT Software Development Manager
Tandem Computers, Inc.
Cupertino, CA**

Education:

B.S. - Mathematics and Physics, Bowling Green State University

Job Description:

Section Manager for various teams of technical engineers. He plays a bridge role facilitating the product development process between the executives, who are interested in a product's market and cost, and the engineers, whose interest is to build the best functionality for that product.

Advice to Students:

"Engineers have to be able to communicate, and be both a leader and a follower on a team."

Video Transcript 1:

"Okay, I'm what's known as a section manager for Tandem Computers. It's a business role with a technical edge. And the technical edge is that I hire teams of engineers to work for me. And they're extremely technical. And I need to understand the details of what they work on clearly enough to abstract it to the 30,000 ceiling where executives live. Executives are interested in market, channels to market, budgets, cost, and cost of ownership. A lot of things associated with products. The engineers are interested in the interesting way to build the functionality that you want, whether it's software or hardware."

Video Transcript 2:

"So the question on the table is if I've got two engineers to hire, and one is a genius, clearly demonstrable as a genius in their educational background. The other one has a good educational background - clearly smart enough to get through the door and has met all the qualifications for the job - and communicates well, which one would I hire? And the one I would hire would be the one who communicates well."

Interview:

For Jay O'Dell of Tandem Computers the keys to success in the business world are knowledge and commitment. When hiring new engineers, he looks for candidates who have a deep understanding of their areas. He also looks for people who can make progress without

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supervision. He explains that business is concerned with "how [your work moves] the product forward to the customer- not really with how hard you're working during the day." Therefore, it is imperative for the engineer to "know how hard you can work, and when you can work, and your ability to work." In addition, to produce results, the engineer has to be able to communicate and be both a leader and a follower on a team: qualities that are "not always easy to find in a field where people spend a lot of time alone studying in order to get the information."

In his own case, O'Dell's commitment in his first year of work got his career off the ground. His first job was a one year position at the Lawrence Livermore International Laboratory funded by the Department of Energy. "At the end of that year, I was to be considered for a permanent position. So my goal was to get hired for the second year." O'Dell's course of action is a useful example to any young engineer. "I'm very stubborn; I will stick to a problem until it's solved. I realized that there were people around who had solved the problems that I ran up against. And so I tried to emulate or understand or find a mentor in those people. I tried everything that I could think of. I tried getting better educated, working very hard, and improving all of my soft skills like communicating and working on a team in that first year. And then I was hired for my second year so I won!" But he cautions that, once hired, engineers need to continue "reeducating" themselves to stay on top.

In his years in the industry, O'Dell has seen many changes a significant one being the number of opportunities available to handicapped engineers. "I got my first job in the industry in 1978. The state of handicapped access is much, much different today than it was then. When I go through the door, people look at my qualifications now; they don't look at my handicap." O'Dell tells students, "If you have a disability, don't let it stop you getting a job."

What disabled engineers should expect to do is explain their concerns to their employers. "The law says that, if you have the necessary skills, the business will make what they call reasonable accommodations. 'Reasonable' usually refers to cost. You don't want to put a business out of business to help someone. But what is reasonable?" O'Dell advises the engineer to discuss the problem and the needed accommodations in a frank way with management "because they don't know." O'Dell's personal accommodation is that he doesn't fly. In order to get management to understand the problems of airplane travel for a person with a wheelchair, he has gone through some of the details, so they can internalize the difficulty. And they usually agree. I've only had to go on one trip in nineteen years."

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