

Meet Physics Department Alumnus

Daniel Stevenson , M.S.

Stetson class of 1974

OPEN LETTER TO PHYSICS MAJORS:

It's surprisingly awkward to start into a project like this, thinking back to experiences 30 years ago and trying to draw meaningful lessons for others (and myself). The career path that I've followed is likely an unconventional one, but never the less.

Academic Experiences

At Stetson I was a physics major with a large concentration in math. Participation in the Honors Program provided many unique educational opportunities and experiences. I still tell stories about some of the creative mischief that fellow honors house students and I cooked up. After Stetson I went to UNC Chapel Hill to pursue a graduate degree in physics. I was interested in nuclear physics and began taking the appropriate course work and was accepted into the Ph.D. program. After perhaps a year for personal reasons I opted to complete a Masters degree and join the work force.

Career Synopsis

At the time, job prospects in physics were rather dim, and one of graduate student legacies was office wallpaper left behind that was comprised of a large number of polite rejection letters. Bell Labs was hiring anyone who could recognize a computer at 40 paces however, and I could do that (and a lot more), so I landed a job doing software development for telephone switching systems. That was a tremendous learning experience for me. After eight winters in the suburbs of Chicago, my wife and I relocated to Durham, NC and I've worked for a variety of firms in Research Triangle Park since then.

Ten years ago, I joined MCNC, a not for profit research firm with close ties to the university community in NC. At MCNC I established a research program in networking to augment existing research programs in microelectronics and supercomputing. Chasing research contracts and doing collaborative

research projects with industry and academia has been very rewarding and satisfying. Four years ago I had the opportunity to commercialize some of our research results in a spin out company. So, I took what amounted to a three-year leave of absence from MCNC to be the founder and Chief Technology officer of Celotek. Eighteen months ago, I returned to MCNC to establish a new research program here in optical networking. Recently a Silicon Valley firm bought Celotek. And, happily, we are having some successes in getting optical research projects under way.

Reflections on Experiences at Stetson

While at Stetson, I took a great deal of classes that entailed independent study. As I remember it, most of these were physics classes of one ilk or another, that I took from Tony Jusick, but there were others Tom Lick and some outside of my major. Somehow I felt guilty about taking so many independent study classes at the time. Over the years, however, I've come to understand that this experience was training for the most valuable job skill I possess. Learning everything from modern physics to economics on my own gave me the skills and self-confidence to pick up what ever I wanted to learn. This has been a card I've played repeatedly over the years with success. Technical subjects that I've picked up from library research alone have included: voice and video compression methods, switching network design, cryptography, number theory, network protocols, and now, optical networking. The skill has been invaluable, as I've moved into research after doing product development initially in my career. Supporting your self and a team of professionals on contract research is a challenging occupation. The proposal generation process is an intense six week effort that often requires rapidly developing expertise in a new area, identifying an important problem, creating a plausible solution and documenting all this in a way that be successful in a competitive selection process.

As a small school with its attendant individual attention, Stetson was what I needed at that stage of my life. Going to UNC (student population 20,000+) was big transition, that I don't think I would have been ready for as a freshman undergraduate. I found Stetson to be academically rewarding and stimulating. I enjoyed the variety intrinsic to a liberal arts education. In recent years I've come to understand the value of liberal arts education, as well. One class from the honors program curriculum has come to mind often. In part it dealt with a variety of bio ethics issues that seemed abstract at the time. Now these issues or similar ones regularly turn up in the national news.

Rory Dickens, a nationally acclaimed high school teacher in Jacksonville who was tragically murdered in June this year, sparked my original interest in physics. Dickens influenced me to seek a postgraduate degree and provided the feedback that this was a realistic and important goal for me. Coming from a family setting where few went to college and none sought advanced degrees, he served as a positive role model. My experiences at the Stetson physics department prepared me well for the rigors of graduate school. Exposure to lab settings at Stetson provided advantages in experimental research settings. Knowledge of machine tool use and cryogenics for example, are skills not shared by my class peers entering UNC. The quantum jump of academic competition between undergraduate and graduate programs was a surprise. It was a lot of work but not a strain to rise to the top as an undergraduate. It took more effort as a graduate student. At Bell Labs, the talent passed through another filter and excelling required still more skill and exertion.

While I hope to enjoy many more productive years, there are lots of experiences that I can look back on with fondness and a sense of accomplishment. Many of these have been pioneering in some way, and I have the arrows in my backside that comes with the territory. My experiences at Stetson gave me the intellectual confidence to take chances and to reap the rewards that come with those choices.

~Dan Stevenson

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Mr. Stevenson has given us permission to publish his address information, and he would welcome contact from Stetson physics majors (past, present, or future) or from anyone else.

DANIEL STEVENSON , M.S.

Director, Center for Advanced Network Research

RTI International

P.O. Box 12194

Research Triangle Park, NC 27709

dstevenson@rti.org

(Address updated 12/2005)