Nicholas Coult (‘93)

What have you been up to since you graduated?
I’ve pretty much taken the grand tour of mathematical employment. I went to graduate school in Applied Mathematics at CU-Boulder, earning MS and PhD degrees. After that I had several postdoctoral positions, spent five years on the faculty at Augsburg College while also doing industrial consulting, and then switched full-time to industrial work in 2005. Since 2008 I’ve been working at Numerica Corporation (www.numerica.us) in Colorado.

What do you do for a living? How has being a math major helped you get where you are?
My official title is “Program Director.” Because Numerica is a fairly small company (45 people), job descriptions can be somewhat fluid. Numerica is a high-tech R&D company founded by a mathematician in 1996. We designed algorithms and implement software for applications in tracking and data fusion, chemical detection, GIS, and other areas. I am responsible for managing the transition of some of our core technology into real software products. That means I have to understand everything from the mathematics and the algorithms to the software development lifecycle, and customer requirements. I spend some time writing code, some time doing high level design, some time managing the software team (which consists of myself, 2 physics PhD’s, 1 CS PhD, 1 CS MS, and 1 Mathematics BA), and a fair amount of time communicating with our customers on the phone, via email, and in person.

Being a math major is essential to what I do. I use my mathematical training on a daily basis. I often find new and unexpected ways in which my coursework turns out to be useful.

Are there classes you wish you would have taken while you were at Carleton which you didn’t?
In math, I took a good variety of courses. I do wish I had taken Probability & Statistics II (I took only the first part) because probabilistic/statistical thinking is critical in “real-world” applied mathematics. I’ve managed to pick up what I need to know on the fly but it would have been helpful to have a solid academic background too. For the kind of work I do, I probably could have taken more CS courses. Again, I’ve learned a whole lot on my own, but having more coursework could have saved me some time over the years.

What advice would you give current math majors?
There are a lot of opportunities for talented people with a strong mathematics background! You just have to be patient in looking for them. For example, there is this small company in Colorado that would LOVE to hire some Carleton Mathematics (and Computer Science!) majors...