

What do you do as an engineer/scientist?

I am a product development engineer. The product that I work on is the Power PC microprocessor that is used, for example, in Apple Computers and Nintendo's Game Cube. I am responsible for working with the technology and manufacturing teams to ensure that the product meets our customers' expectations, specifically relating to the performance (speed) of the part.

I deal with lots of types of data, from data that is taken in the fab (fabrication), wafer and module test data and data from system labs in BTV, AUS and the customer. I try to correlate system performance data to device-related parameters in order guide the process teams to build wafers within a certain process window.

How do you use your technical training and/or degree today? How has it helped you?

A degree in physics was not only invaluable in the subject matter that was covered, but also in the types of skills learned along the way-- independence, perseverance and teamwork. Lab work comprised of eight hours in first year, 13 hours in second year and 2.5 days in final year.

What do you find most satisfying about your work?

I love working on new, cutting edge technologies and applications. I love seeing our customers thrilled with our products and able to create new applications and features for their customers. I love seeing the products that I work on being used in the marketplace by friends and neighbors.

These are all items associated with the big picture. The discrete activities that I have to do in order to get to the point of shipping a product are all varied and challenging. There is always something new that I have to learn. Each new project is usually just a little more complicated than the last. There is usually a new technology feature or customer requirement with each subsequent project. I enjoy this aspect.

I also consider part of my job as making it better for the next person. When I'm training a new person in the department I try to encourage that person to see continuous improvement as 10-20% of their job. I think that that is important for the good of the team – our characterization team and the project as a whole, but I also think that it's valuable for the engineer also to increase his or her skill base.