

Megan Gritzfeld

Personal Report

My experience here in Santa Cruz has been a memorable one. It's been full of twists, turns and a handful of surprises. Through plateauing scintillators, time and time again, struggling through my computer stupidity to make a functional website and assisting in the construction of four counters that left me sprawled out asleep with Benadryl pulsing through my veins, I learned a great deal more than I thought possible in a time span of four weeks.

It seemed like in the beginning of this project, organizational skills and communication were lacking. Melanie and I spent the first week and a half plateauing dead end scintillators before discovering that they were never going to be used. When I got here I was originally in charge of silicon detectors, something that Gray had been here working on three weeks previously and I was to reluctantly take over. It seemed pointless for him to just stop what he was doing and let me, having absolutely no previous experience in the field, take over and continue what had taken him weeks to learn and hone. To resolve this problem I was switched to the head of the website design, something that proved both easy with my experience in design and quite difficult in my lack of advanced computing skills. Lucky for me, Michael was there to assist me and I gained quite a bit of experience and confidence both in myself and in computers.

When all the parts for constructing our set of four scintillators came, our productivity escalated rapidly. Immersed in our new found work, everyone was eager to finally feel like we were accomplishing something. Slacking was no longer an option, there was too much to be completed and everyone immediately stood up to the challenge. Organization and communication were immediately improved although that remained a difficulty for us through the internship. However, my efficiency was sojourned when I had an allergic reaction to the scintillator dust. Even at the time I found the whole thing rather humorous, but was immensely disappointed because I felt I was letting down the team. Instead of sulking around because I felt useless I got right down to helping sand the light guides in water, which seemed not to bother me and I once again felt productive.

As soon as our scintillators were completed we tested them for light leaks. Thanks to our hard work we found only two obvious leaks which were quickly fixed with another application of tape. Once that was done every one stood up to the challenge of plateauing them. I felt that during the plateauing we worked really well as a team. Everyone had a small, simple and repetitive job, reminding me of the highly effective assembly line. It certainly produced results quickly. Unfortunately, once finished the data for the singles rate proved worthless. The plateaus in the data were completely undistinguishable and the data seemed like jumbled nonsense. We got much better results with the coincidence counts. Plateaus were slightly visible, although things still didn't seem quite right. By the time we completed the muon lifetime experiment it was obvious something was wrong. Our lifetime was much too low. It wasn't until the end that we discovered that there was a mistake on the wiring of the WALTA board. With only one day left it seemed unreasonable to try and resolve this.

I am so happy I was given this opportunity. I felt that I learned so much, and am ready to take what I've learned to a new level. Walking away from this I know what I've

done will really help me in my future and couldn't be more proud with what I've accomplished. Although we didn't meet our goal, I felt that I met a more important objective to myself. I learned to work on a team, gained a colossal amount of knowledge on all sorts of things ranging from string theory to correct soldering techniques, and most importantly, gained confidence in myself. The environment made it so easy to learn. Being around so many ingenious people really made me thirst for knowledge. I came into this thing feeling confident in my smarts and then I met Harmut and Teri. Being around those guys made me realize how ignorant I was and how much I still had to learn. This realization gave me this unquenchable thirst to suck up every little detail of every thing I possibly could. I still have a long way to go before I could even dream about getting up in front of a group of students and address the Anthropic principle while they stare back blankly, but the point is I was given that push and one day I *will* be standing up there pouring my brains out, hopefully to inspire some young soul just the same as I was.